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ILLUSTRATIONS.

Selby Abbey: Proposed Rebuilding of South Transept and Tower.—Mr. J. Oldrid Scott, F.R.I.B.A., Architect ..... *Double-Page Ink-Photo.*
Colchester Town Hall: Third Premiated Design.—By Mr. E. W. Mountford, F.R.I.B.A. ..... *Two Double-Page Ink-Photos.*
The Emperor William Memorial, Berlin ..... *Two Single-Page Tone Blocks.*

Blocks in Text.

Skellig Michael from the North ..... Page 215
Map of Skellig Michael ..... „ 216
Skellig Michael from the East ..... „ 216
Skellig Michael, ascent to old door ..... „ 216
Some Furniture Sketches from South Kensington ..... Pages 223-221
Wall of enclosure, or "Cashel," at Skellig Michael ..... Page 216
Ornaments on stone at entrance of the tumulus of Newgrange, by the Boyne, Ireland ..... „ 217
Sandycombe Lodge, Turner's House at Twickenham ..... „ 219

CONTENTS.

Plasterer on his Craft 213
The Ancient Architecture of Ireland 214
Notes 217
Some Furniture Sketches from South Kensington 219
Selby Abbey: Tower and South Transept as Proposed to be Rebuilt 222
Colchester Town Hall 222
The Emperor William Memorial, Berlin 222
The Sanitary Institute Congress at Leeds 222
The Auctioneers' Institute 223
Competitions 223
The Tabernacle, Milton Abbas 223
To Ambitious Architects and Others 223
Effect of Iron on Teak 223
Student's Column: Quantities and Quantity-Taking. IX. 223
General Building News 224
Sanitary and Engineering News 226
Foreign 226
Miscellaneous 226
Capital and Labour 227
Legal 227
Meetings 227
Recent Patents 227
Competitions, Contracts, and Public Appointments 228
Some Recent Sales 229
Prices Current 229
Tenders 229

A Plasterer on his Craft.

THE importance of the plasterer's craft is a theme which needs no enlarging upon; never, certainly, can it have received so large a share of general attention as during the last few years. Yet, as the author of a new, and in many senses remarkable, treatise* on this subject tells us in his preface, there does not exist a satisfactory modern guide to the practice of plasterer's work. "So far back as the time of my apprenticeship," says Mr. Millar, "when attending the classes of the Edinburgh School of Arts—the need of a practical book on plastering and modelling was greatly felt. It was thought remarkable that although many books, varying in size and in degrees of merit, dealing with other branches of the building trades, were in use, no such book existed on this ancient and honourable craft, and I believe that this is the first complete and practical work published on the subject." Mr. Millar, of whom, in a prefatory note, Mr. Robinson gives some interesting biographical particulars, is a working plasterer, a descendant from a long line of plasterers. Beginning with what his biographer well calls the *rare* advantage, in these versatile days, of a rigorous apprenticeship, he has worked through most parts of the United Kingdom, and even further, all the while accumulating material for this book, the writing of which has been his life-long ambition. The work was regularly begun so long ago as 1880, but has been hindered by an almost unparalleled series of misfortunes, surmounted with a pluck and persistency really admirable. The author has both worked and observed, and read extensively besides; he has seen both sides of trade questions, from the point of view of workman and of master, and can very justly claim that he is fortified by a life-long study of the subject, together with a most varied experience, for the task of furnishing, for the use of his brethren of the craft, "a practical treatise on the manufacture, use, and manipulation of all materials, and a description of the numerous processes employed by plasterers and modellers."

"Plastering" is truly a monumental work, and, whatsoever its shortcomings, it is, and must for long continue to be, a text-book of primary importance. In these days of brief and scrappy manuals, of compilations written to order by versatile penmen, ready to work up any subject for the nonce, it is in the highest degree refreshing to meet with a book such as this is, having the deliberate aim of being complete at all costs, written by a man steeped in his subject to the core, evidently from first to last a labour of love. A short time ago the Bishop of London, speaking to students on the subject of reading, declared in the most emphatic manner that knowledge, so far as it could be gained from books, must be sought for in "big books"; folios actually, the Bishop went so far as to say, he most preferred himself and recommended to others. This is advice worth remembering, when there are so many people always ready to quote the shallow proverb about a great book being a great evil: although the book we are considering is certain to be called ponderous, that quality is by no means in itself a fault. We are far from saying that in the six hundred and odd pages which compose this particular book there is nothing which might not, without any loss, be omitted. There are passages in plenty which the most lenient critic would call either verbose or superfluous. But there is much more to be learnt from a man who *knows* his subject, when he is allowed to tell everything that his heart prompts him to say about it, than when he is bound down to give the best account of it he can in, say, the two hundred and fifty small octavo pages of an ordinary handbook. So Mr. Millar, as a genuine lover of everything even remotely pertaining to his craft, may be pardoned for his general diffuseness and frequent digressions, on account of the immense body of really valuable *first-hand* information which his book unquestionably contains. His work becomes of great importance when it is considered as the first attempt of a comprehensive kind, by a man who has spent his life in the actual handling of plaster and the cognate materials, to impart freely and fully all the results of his experience. This experience seems to have been unique in combined extent and variety, and the time will probably be long before the appearance of a rival in this particular field; so, for better or for worse, "Millar on Plastering" may be expected to be the standard authority on the subject for many years to come.

Of the three sections—"plain," "decorative," and "historical"—into which, according to the title-page, this book may be divided (though they do not form distinct and consecutive parts, but are considerably interwoven), the first is altogether the best as well as the most prominent. Technical excellence as an ideal is, in fact, the predominant note of the book, and it is for practical, rather than for artistic or literary, virtues that it chiefly deserves to be recommended. Chapters II. and III., dealing with materials, give as comprehensive and thorough descriptions as could be desired of the various kinds of plasters and cements, from the stage of raw material to that of readiness for use; they include directions for many methods of testing, clearly explained, and qualified by pertinent remarks as to their respective values; and are well brought up to date in respect to patented plasters and metallic lathing. No decided opinion is pronounced upon the desirability of adding salt to mortar as an antidote to frost, or sugar to obtain greater tenacity, but these questions are very fully discussed; their treatment being a good example of the author's general method. He gives, as a rule, the complete facts of all the observations attainable both from ordinary work and from special experiments, thus allowing the reader to gain an idea of the *pros* and *cons* which so often prevent building practice, even in its most strictly constructional aspect, from being treated as an exact science. Yet it cannot be said that Mr. Millar is never dogmatic; as, for instance, when he asserts that "in the case of cements of all kinds sand is only good for lessening the cost of the aggregate"—a sweeping disposal of a matter about which there is room for legitimate variety of opinion. Chapter VI. is a good and workmanlike exposition of the ordinary processes of lime-plastering. The care of the author to include everything which might even seem worthy of notice is well exemplified here. After devoting a whole page, and three figures, to describing a mitre-mould for cornices, he tells us that it is utterly useless, since an average plasterer could put in all the mitres of a room while the mould was being made. Nevertheless, he is "constrained to give a description, not only to save future futile controversy, but to show that in this book the much-debated trade subject has not been omitted." There is a ring of finality about this very expressive ot

*"Plastering, Plain and Decorative. A Practical Treatise on the Art and Craft of Plastering and Modelling." By William Millar. With an introductory chapter, entitled "A Glimpse of its History," by George T. Robinson, F.S.A., pp. xvi., 604, pl. 52., 4to. London: B. T. Batsford. 1897.

the spirit in which the book has been conceived and carried out. This chapter contains ample advice on dealing with cracked and damaged plaster work, which should be as acceptable to surveyors as to plasterers, and concludes with a discussion of "joist lines" on ceilings and their prevention.

"Decorative ceilings" (to be again referred to) and "Running diminished and circular mouldings" occupy the next two chapters. In the latter many highly ingenious instruments and methods of working, some of them of the author's own invention, are described. These are useful and even necessary for carrying out designs of a certain sort, though on the whole they appear too elaborate and mechanical; that, however, is not primarily the fault of the plasterers. "Exterior plastering" is the title of Chapter VII., and the greater part of it has a very old-fashioned air, being nothing less than a glorification of the practice, happily not at present in much repute, of imitating Classic and Renaissance façades in Portland cement. Many "beautiful," "noble," and even "exquisite" instances of the use of that material for London exteriors are described, with unquestionably genuine enthusiasm, and the cement-fronted portion of Victoria-street comes in for a degree of admiration which it is commonly supposed to have out-lived. Examples follow of appropriate details for this class of work—Doric porticos, Ionic niches, and the like, taken bodily from Gibbs and Chambers, till we seem to have slipped backwards half a century at least. Mr. Millar does not quote the epigram on the designer of Regent-street:—

> Augustus at Rome was for building renown'd,
> For of marble he left what of brick he had found;
> But is not our Nash, too, a very great master?
> He finds us all brick, and he leaves us all plaster.

But he would doubtless consider it a very high compliment. Under the same heading of "exterior plastering" are described, rather inappropriately, the processes of sgraffito and fresco decoration. As to the former, although no physical impossibility precludes its adoption, it is a thing which, for external use at any rate, is better avoided in this climate; while to work in fresco out of doors in this country would verily be "ploughing the sands." The important branches of *the plasterer's craft comprised under the* heads of modelling, moulding, and casting, including fibrous plaster work, are most exhaustively treated. Several chapters, plentifully furnished with clear illustrations of details, and containing many useful recipes, are devoted to these subjects, and are followed by one on the making and using of "compositions," gesso, papier-mâché, and carton pierre, besides newer inventions. It was probably considered necessary from a "trade" point of view to instruct the young plasterer to concoct that detestable substance "scagliola;" though it seems a grievous waste of time to give such minute directions for producing effects of spurious grandeur by the imitation of the noblest of nature's materials; such unhealthy "art" deserves condemnation rather than encouragement.

Terra-cotta work might appear to be somewhat beside the scope of Mr. Millar's book, but he thinks that the modelling and moulding stages may pertain to the plaster-modeller, and accordingly gives general instructions for terra-cotta manufacture. Concrete, however, in the form called "fine concrete," is a material the handling of which is becoming one of the principal sources of employment for plasterers. The author is not so much alone here as in other portions of his book, the modern literature of concrete being fairly voluminous; to mention no others, there are the very useful works of Mr. Potter, to which, we are pleased to see, Mr. Millar makes reference. But among the pioneers of the new developments of concrete, which have given it so large a place in modern building, Mr. Millar has himself been one of the busiest, and the information which he gives on this subject is both varied and interesting. His account of the construction of floors, pavements, and stairs, is particularly good, and leaves little room for improvement; as to steps, however, merely grooving or indenting the treads is hardly enough to ensure pleasantness in use, and there is much to be said for the addition of hard-wood treads to such stairs, a combination which Mr. Millar does not notice. Concrete lintels are disposed of in two lines, though some less desirable applications of the material receive more than adequate attention. The practical section of the book comes to an end with a chapter on "Rudimentary geometry and architecture," in which the architecture is of a singularly dry and antiquated type, suggesting an early edition of "Gwilt," and a much more useful one on "Tools and appliances," wherein the author shows himself thoroughly at home, as also in the Appendix, containing memoranda, quantities, and recipes.

One remarkable omission must be noted here. Nothing at all is said, except in the historical section, about the use of plaster in combination with timber for external work. Seeing the popularity of this class of work, the quantity of it constantly in progress in every part of the country, and the variety of questions concerning it perpetually recurring in the building journals, it might be expected that the best methods of carrying it out would have received due consideration. There are plenty of practical points in this connexion upon which good instructions are greatly needed, and would, we believe, be much welcomed. Whatever purists may say about such work being nowadays out of *place, there is no question but that people* like it, and will have it; wherefore it seems a mistake to ignore it altogether in what professes to be a complete craftsman's guide, and in which economy of space has certainly not been thought of.

The artistic interest of the book is mainly concentrated in the historical portions, the joint production of the author and of Mr. George T. Robinson, which are copiously illustrated with engravings and photographs from various sources. To the modern specimens of ornamental plaster work designed or collected by Mr. Millar it is impossible to give any praise; they may be faultless in execution—from a clerk of works' point of view, but regarded as examples of what designing in plaster ought to be, they can only be described as pretentious failures. Mr. Millar appears to be impressed with the idea that the principal function of the plasterer is to imitate the work of the mason, and, next to that, of the wood-carver; of real "style" in plaster he has no conception, and in artistic discernment generally he is sadly lacking. Mr. Robinson's introductory chapter is, of course, well done, and contains a great deal of curious information; it is a pity, however, that it overlaps so much with Mr. Millars's own first chapter, oddly entitled "An Account of Historical Plastering in England, Scotland, and Ireland," and also with his sixteenth chapter on "Foreign Plaster Work." The greater part of these three chapters might have been thrown together into one consecutive account with much advantage. As to Mr. Millar's own share of the book we may, as his coadjutor says, be well satisfied that he has written down his own "shop knowledge" as intelligently and intelligibly as he has done, and he himself modestly deprecates literary criticism. Seeing, however, that Mr. Robinson undertook the revision of the work and a general editorial responsibility, it is to be regretted that he did not take greater care to secure the accuracy proper to a permanent book of reference. Passing by the awkward inversion on the title-page, "An Account of Historical Plastering, &c.," for "A Historical Account of Plastering," we several times come across evidence of the strange confusion of ideas implied in such headings as "Plastic Literature," "Plastic Terms," and even "Plastic Materials," the last including such distinctly non-plastic things as laths and nails. After this it is not so surprising to be told that gypsum is "so named from two Greek words—*ge*, the earth, and *epsun*, to concoct, *i.e.*, concocted in the earth;" that "Callimachus was called by the Athenians 'Katatexnos';" or that "the Mediævalists were excellent plasterers." Another form of carelessness is shown in assigning work by Inigo Jones to the year 1750, and in describing Sir Charles Barry as architect of the new rooms added to the National Gallery in 1876. Of ordinary printers' errors there are not many of importance, and the typography generally is very good, especially considering the price (18s.) at which the book is published. The number and quality of the illustrations by themselves render this a remarkably cheap book; many architects as well as master-plasterers ought to be glad to obtain so reasonably such a representative series of specimens of old work, together with such clear diagrams, explanatory of modern processes; and notwithstanding that Mr. Millar *is not quite in touch with present-day tendencies* in design, there can be no question as to the solid, practical usefulness of the major portion of his work. In taking leave of him we feel that we have been in the company of a thoroughly conscientious, as well as capable, worker, well endowed with that peculiarly Scottish form of genius, "an infinite capacity for taking pains," and congratulate him on having left such a legacy to his craft as will connect his name with it as intimately and as durably as that of Tredgold is with carpentry.

THE ANCIENT ARCHITECTURE OF IRELAND:

CONSIDERED ESPECIALLY IN RELATION TO PRE-CONQUEST BUILDINGS IN ENGLAND.

By PROFESSOR BALDWIN BROWN.

I.

IN commencing a brief series of papers on early Irish buildings it may be well to note that many of the types that they present are not confined to Erin, but are found also in Wales, in Western Scotland, in Cornwall, in the Isle of Man. There, however, we

have to deal rather with fragments and indications than with existing monuments. The Hibernian examples, on the other hand, are comparatively numerous and well preserved, and exhibit some interesting types peculiar to the country and not actually found in other parts of our islands. Hence it is convenient to apply the term "Irish" to the whole class of structures in question, though examples of them may occur elsewhere. What is said about the Irish work will be, of course, appropriate to similar monuments along the whole of our western sea-board.

Irish architecture has been fortunate in its literary treatment. Since the epoch-making work of George Petrie there have been published Lord Dunraven's "Notes," with the invaluable photographs which give the aspect of the monuments prior to the process of restoration applied to them in more recent times, while Brash's "Ecclesiastical Architecture of Ireland" and the widely-known works of Miss Margaret Stokes have been supplemented by numerous monographs and papers in antiquarian journals, in one or another of which almost every structure of importance has been dealt with in a thoroughly critical spirit. In what follows it is proposed to keep in view the special object of determining what light Irish monuments may throw on the problems of pre-Conquest architecture in our own country.

The early architectural history of Ireland, and, if we like to add, of Wales and Western Scotland, has this special element of interest, that it unfolds itself in almost entire independence of classical influences. Elsewhere in Europe mediæval architecture is based in the main upon Roman traditions of building; in the Romanised West, antique models were naturally followed; while the lands that lay beyond the Empire to the North received their Christianity so largely from Roman sources that their ecclesiastical architecture conformed to the types established to the south and west of the Rhine. Even in Norway the wooden churches of the eleventh and twelfth centuries exhibit, in many features, a timber rendering of classical forms, while early Saxon buildings in England have *always Roman elements, which appear in* details if not in plans and methods of construction. Ireland, on the other hand, never received Roman civilisation, and her Christianity was of a markedly non-Roman character. It is true that there was close intercourse in early Christian times between Hibernia and the Continent, and this would have made it natural for the Irish, had no native models been available, to conform, in their ecclesiastical buildings, to Continental fashions. As a fact, however, Ireland, with the adjacent lands already indicated, enjoyed in this respect a certain advantage over the rest of Europe. Elsewhere in the West there are abundant remains of remote pre-Christian antiquity, but they are generally in the form of sepulchral monuments or works of defence, not in that of habitations. They have no distinct architectural character, and in consequence make no appreciable contribution to the future forms of mediæval building. The habitations of the same primitive period were of slight and perishable materials, and incapable of starting a constructive tradition. On the other hand, upon the exposed sea-board of Western Britain the exigencies of the climate made it necessary for dwellings to be erected with the same solidity as walls of defence, and we find accordingly a technique of stone roofing established there from a very early period that was specially elaborated in Ireland, and has had there a remarkable influence on the subsequent development of architecture. In these regions the first Christians could erect a stone house or a stone church in a purely native manner without recourse to Continental models, and that the Irish made a specially full and consistent use of this facility is the first point of interest about this unique phase of Christian art.

Connected with this continuity between Pagan and Christian traditions, there is another noteworthy feature about Irish mediæval buildings—the sequence of clearly marked types which they present. The approximate dates of individual examples may be as difficult to fix as in the case of any other phase of architecture, but the chronological relation of type to type is fairly clear, so that when we find Christian structures agreeing closely in type with those of Pagan origin, we may with confidence ascribe them to an early period. A building connected by tradition with the name of an early Irish saint, that is constructed entirely on native principles, and shows no sign of Roman features or technique, may be ascribed with some probability to the sixth or seventh century, while those that exhibit Roman forms and a greater conformity to Continental patterns, or have features which, like that of the tower, belong to mediæval rather than early Christian times, are proportionately later. Here, again, the student of Irish architecture is exceptionally favoured. Elsewhere in Europe it is not easy to find representative works of the ninth and tenth centuries. Such must doubtless exist, especially in Italy, but they are not easily identified. Their scarcity is, in certain regions, often accounted for by the invasions of the Northmen, which are held to have checked building operations within the sphere of their devastating influence. In Ireland, however, there is a whole class of structures that belong to this very period and represent an architecture not crushed but stimulated by these very inroads. The reference is, of course, to the round towers, the earliest of which, according to the view now generally accepted, were built as refuges and places of safeguard for lives and treasure in these times of danger. The round towers are always found in connexion with other ecclesiastical structures, with which they afford valuable points of comparison, and we may thus claim that in Ireland we have not only early Christian but also early Mediæval architecture illustrated by abundant and interesting monuments.

If the centuries from the sixth to the eleventh are thus continuously represented, we find new features of interest when we approach the date of about 1100 A.D. This brings us to the period of Irish Romanesque. The earlier ecclesiastical structures already noticed are practically unadorned, but some of those dating about 1100 to 1150 A.D. exhibit a profusion of carved enrichment in which the spirals, the interlacings, and the lacertine grotesques of Hibernian illuminations and metal work are seen mingling with other more regular elements of European Romanesque. The question how far this interesting phase of art was original, how far derived from Continental sources, has been much discussed, and some attention must be given to it in the sequel. The almost universal use in it of the chevron ornament suggests at once the influence of the Norman carver, though it must be borne in mind that the work appears at its best in Ireland before the Normans actually entered the country. The chevron, if we admit it to be Norman, supplies a valuable criterion of date, for the limits of time within which it was used in Norman or Normanised lands admit of being pretty narrowly fixed. These points, however, must be left for a future paper.

The earliest ecclesiastical structures in Ireland are monastic. All over the country these are to be found in the form of small churches, often in groups of three or four, in connexion with which came to be erected at a later time the famous and interesting round towers. In the west, moreover, these churches are accompanied by the remains of domestic buildings that are, in their way, of equal interest. The preservation of these is due to the fact before noted that they are in these regions built of stone to resist the storms of that wind-swept shore, while in more sheltered parts they were of wood or wattle and clay, and have now naturally disappeared. Along the western coast of Erin these monastic settlements are almost as numerous as are the capes and islands themselves, and they are equally abundant on the islets that stud the inland lakes, such as those along the course of the Shannon. The most remote and least accessible of all is at the same time one of the most interesting. This is the monastic settlement near the summit of St. Michael's Rock, or Skellig Michael, one of two lonely crags that shoot up from the Atlantic waves some eight miles from one of the westernmost promontories of Kerry. Skellig Michael was described and illustrated in the *Builder* of September 12, 1891, and February 20, 1892, and what will be said here is only supplementary to the accounts there given. The view in fig. 1 shows the aspect of the rock as it is

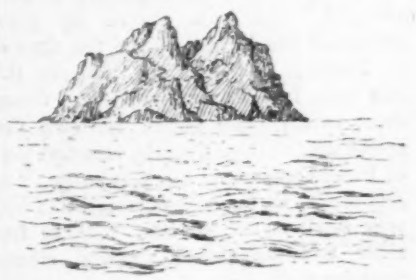


Fig. 1.—Skellig Michael, from the North.

approached from the North, and the sketch map, fig. 2, exhibits the topography with sufficient clearness to make any fresh description unnecessary. The traces of human handiwork on the rock are of three periods, early Christian, mediæval, and modern. The high antiquity of the monastic structures themselves is rendered certain by the fact that they exhibit that resemblance to pagan works which, as we have seen, is the surest test of age, while there is only one of them, the so-called church of St. Michael, that gives any indication of a more advanced technique. The Irish annals tell us little about the settlement; but it was important enough in 823 to attract the hostile notice of the Vikings, who carried away and starved to death one of its

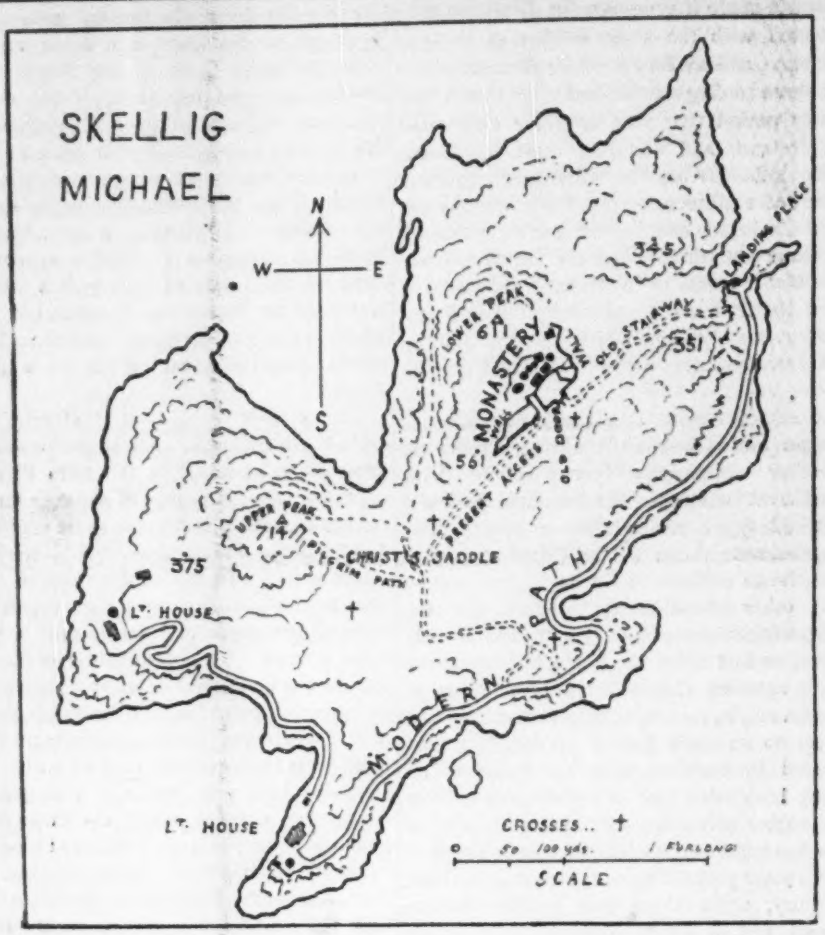


Fig. 2.

inmates. It is stated to have been revived later on in the ninth century, but at some subsequent period that cannot be fixed the settlement was transferred to the mainland. The rock became then a place of pilgrimage rather than of residence, and was frequented for this purpose throughout the mediæval and more modern epochs. Dr. Smith in his "State of the County of Kerry," published in 1756, gives the authority of Keating for the statement that this "high and stupendous rock" had been visited by great numbers of people "ever since the time of St. Patrick," and tells us also—in this case upon his own authority—that, though about twenty years before his own time people used to come from the remotest parts of Ireland to perform the pilgrimage, "the zeal of such adventurous devotees hath been very much cooled of late." These facts show that the various stations, crosses, retaining walls, steps of access, and the like, on the rock need not all be referred to a remote antiquity. It would be the work of some days to trace out the connexions and probable history of all these, and the visitor to the Great Skellig has generally to confine his visit within the space of a few hours. Hence a good deal still remains to be done on this most interesting site.

Besides the monastic settlement itself, the oldest thing on the rock is doubtless the stair of access leading straight up from the landing-place at the north-east corner of the island to the original, but now blocked, door of the enclosure. The view of the rock given in fig. 3 shows on the left this landing-place, while the outer wall of the enclosure or "cashel" is seen far above, just at the top of the rounded hollow on the left of the peak. The lower part of this access has been destroyed, and the point where it now begins, about 120 ft. above the sea, can only be reached by a scramble. From this point it is well preserved, and consists of a stairway

Fig. 3.—Skellig Michael, from the East.

of more than 600 steps that zigzag up the steep bed of the gully shown in the view. The date of the existing steps it would be

Fig. 4.—Skellig Michael, ascent to old door.

rash to attempt to fix, but they are very carefully formed of slabs of slate bedded well into the ground of the gully, and in places elaborately terraced up with dry stone walls similar to those of the monastic enclosure above, while they end at a doorway shown in fig. 4, whose joints of upright stones and flat lintel recall the entrances to Pagan forts. The character of the enclosing wall at this point, where it is carried along the top of a steep, though not actually precipitous, slope, is shown in fig. 5. The rock in the middle

Fig. 5.—Wall of enclosure, or "Cashel," at Skellig Michael.

distance is the Little Skellig, a famous haunt of the Gannet, or Solan Goose.

On the map will be seen a point in the centre of the island between the two peaks that is marked "Christ's Saddle." This is in the form of a grassy hollow carpetted with sea-pinks, from which various paths will be seen diverging. From here a flight of steps lead in a north-westerly direction to the monastery, and there was, apparently, also a descent to the North at the back of the peak behind the monastery, which was not explored by the writer. There is a way also from here to the highest point of the rock on its south-western summit, where it rises to a very sharp peak girdled by precipices and only accessible up a narrow gully. This is the scene of the pilgrimages referred to above, and there are crosses and stations and points in the rock so hazardous of access that to climb out to them was an act of penance. From Christ's Saddle long flights of steps descend towards the sea. These are not nearly so well put together or so antique-looking as the direct flight leading to the monastery from the landing-place, and the slabs forming the steps are not so deeply bedded in. The access is probably mediæval in origin and only dates from the era of the pilgrimages, while the present steps have a quite modern appearance.

The third era in the works upon the rock is marked by the long modern path half way round the island, from the cove on the north-east to the light-houses at the south-western extremity. This was constructed by blasting some years ago by the Trinity Board, and has brought into use again what must have been, as we have seen, the original landing-place. This was, apparently, disused in mediæval and later times, for Smith tells us that in his day the only two landing-places were on the south and the south-west. Visitors now land at the ancient spot, where there is an imposing cave, and follow the modern path skirting the sea to the foot of the mediæval ascent to Christ's Saddle, from which they reach the monastery through a comparatively modern entrance.

The character and arrangement of the

monastic structures, consisting of small oratories and bee-hive cells, have been illustrated in the previous numbers of the *Builder* already referred to, and need not here be described, but before we leave this spot of unique interest and beauty we may allow our thoughts to dwell for a moment on the life of which it was one of the centres, and on all that that life meant for Christendom.

An effort has been made by Professor George Stokes to connect the Irish monastic system with the East, and especially with Egypt. The connexion is possible, but direct proofs of it are, apparently, not forthcoming. One piece of evidence of the kind may be worth recording. Gregory of Tours (Hist. Franc. vi. 6), tells us of a monk inhabiting the Mediterranean coast, near the modern Nice, who had a fancy for living on the same roots that served for food among the ascetics in Egypt, and that were brought to him by vessels trading with Alexandria. This story associates Egyptian monasticism with that of Provence, and when we remember that a very good authority for the life of St. Patrick makes the Irish evangelist study for his life work in the "islands of the Tyrrhene sea" (Lérins, &c.), we can carry the thread of connexion in the same early times to distant Hibernia. Yet to insist on such a connexion is quite unnecessary. It is

Fig. 6.—Ornaments on stone at entrance of the tumulus of Newgrange, by the Boyne, Ireland.

true that Celtic monasticism agrees with Oriental in its adoption of the solitary life in contradistinction to the life in common of the Benedictine communities. But the love of solitude is only one of the tendencies in Celtic monasticism, and is balanced by the quite opposite passion for wandering, and for missionary enterprise. The Irish monks were no mere hermits whose energies stagnated in such isolation as the Oriental ascetic made the law of his existence. They were men of force and of initiative, as well as of meditation. The most profound and heart-searching introspection alternated in the habit of their lives with outbursts of missionary fervour, that carried them through infinite dangers and hardships to far-off goals. The striking early Christian romance, known as the voyage of St. Brendan, represents a poetic embellishment of real incidents. St. Brendan's countrymen extended their missionary voyages certainly to Ireland, if not to regions much further west.* On the continent of Europe they became the most indefatigable of missionaries, and their work in Great Britain forms one of the most interesting episodes in our ecclesiastical history. At a time when the Augustinian mission to Canterbury is attracting some special attention, it is worth while to recall the words of Bishop Lightfoot, who calls Augustine the Apostle of Kent, while the Apostle of Britain was Aidan of Lindisfarne. It was Aidan and his companions who had the largest share in the conversion of the Teutonic conquerors of England, while the emissaries of the Gallic Church and the monks sent over by Pope Gregory divided the rest of the work. Lindisfarne was the mother of the most enthusiastic and effective missionaries to our forefathers, and Lindisfarne was a daughter of that Iona which represented a great crusading movement of the Irish against the heathenism of Northern Britain. It was in places of solitude and retirement, like the capes and islands of Erin, that the missionary fire was kindled and fed till it burst, ever and anon, into the fervour of a Columba, an Aidan, or a Cuthbert. These island monasteries, like the Skellig, were not the haunts only of self-absorbed devotees whose only reck was of their own private salvation, but of men who were ready, when occasion came, to lay down their own lives to win the souls of others to Christ. We breathe upon the peaks of this "high and stupendous rock" the free air of sky and sea, but not less exhilarating is the mental impression that we are here at the source of a stream of Christian influence that flowed with beneficent effect over all the land of Britain and beyond. It is true that the work of the Celtic missionaries was, as far as could be, obliterated by the ecclesiastical statesmen who ultimately won for Rome the supremacy of the West. We may suppose that the cause of Rome was pleasing to the gods, for at any rate it was the victorious cause, and ecclesiasticism conquered and ruled the mediæval world. The true successor of the Apostles was, however, neither Pope nor territorial prelate, but rather the single-hearted preacher of the faith whose memory is still alive in Northern Britain, and who drew his inspiration from among the mountain breezes and the waves of wind-swept Erin.

* See an article on St. Brendan by Æn. J. G. Mackay, in *Blackwood* for July, 1897.

NOTES.

Architects' Names on Buildings.

WE have before referred to the occasional practice in Paris of inscribing the architect's name on a building. It may be of interest to notice that the Belgian architects have now, practically one and all, adopted the custom of inscribing their names on buildings executed from their designs. The position selected for the name is generally at the right-hand corner of the main front, the lettering, as a rule, being in small capitals, and by no means arranged in such a manner as to look like an advertisement. We understand that this custom was first initiated by some of the younger members of the profession, but with the increasing public interest in architectural matters—an interest which has been so carefully fostered by the representative societies of Belgian architects—there has actually been a demand on the part of the general public to have the name of the author of a design as easily available as is the case with a painting or a piece of sculpture. Of course there have been a few black sheep in the profession who attempted to utilise the new custom for advertising purposes, but fortunately, both the Belgian authorities and the public appear to be able to discriminate between the so-called "signature" and the mere *affiche*. There is one peculiarity in connexion with the custom, and that is that the architect's name is rarely to be found on bad work, and we have even noticed one or two buildings which look like those of a beginner, where the name has been on, but has subsequently been erased. A leading Belgian architect only lately remarked that the "signing" should be compulsory for all architects. The bad designer would then soon be weeded out as public taste was sufficiently advanced in Brussels to recognise an architectural eyesore, and public opinion sufficiently strong to boycott the author of a monstrosity. Surely we are yet far from having such an ideal state of affairs?

The "Old Athene Temple," the Parthenon, and the Erechtheion.

IN a preprint that has reached us from the forthcoming number of the "Athenian Mittheilungen" (1897, xxii.), Dr. Dörpfeld reopens the vexed question of the relations between the "Old Athene Temple," the Parthenon, and the Erechtheion. Since he last discussed the matter (in 1890) no less than nine monographs on the subject have appeared, one of which, by Mr. J. G. Frazer (in the "Journal of Hell. Studies," 1892-93, page 153), had been widely read in England. Mr. Frazer's main contention was that the "Old Athene Temple" was never rebuilt after the Persian wars. Dr. Dörpfeld, as is well known, has steadily maintained that the Temple was never fundamentally destroyed, that it was immediately restored, and its opisthodomos was constantly in use as a treasure house; moreover, that it was visited by Pausanias and its contents described, and alluded to by Strabo as the ancient temple of Polias, which contained the famous lamp of Kallimachos. It is impossible in the brief space of a Note even to summarise the complex argument with its many side issues. We can only briefly state that Dr. Dörpfeld maintains his old view, supporting it by fresh arguments and with but one important modification. Formerly he held that the old Temple was seen and described in the famous lacuna (I. 42. 3), now he holds that at that point Pausanias only passed *outside* the Temple, deferring his description of the inside till after he had visited both Parthenon and Erechtheion. Further, he now maintains that the ancient image of Athene, which was to have been re-inshrined in the Erechtheion, never left the old Temple, but was seen there by Pausanias.

The Société Centrale d'Architecture de Belgique.

THE Société Centrale d'Architecture de Belgique, which celebrated the twenty-fifth year of its existence this summer, has published a pamphlet dealing with its origin, purposes, and the results achieved by its activity. Founded in 1872 with a membership of fifty-nine, the society now has a roll of 264. The library already counts over one thousand volumes, besides a collection of no less than sixty technical journals, which are kept on files, and the fine lecture hall and rooms in the Royal Exchange certainly rival those of many of the older societies. The President of 1872 (M. V. Dumortier) was re-elected to this office for the present year. He has also been in the chair from 1873-1876, and 1884-1886. The exhibitions arranged by the societies during the eighties

were of considerable importance, whilst its excursions were particularly well managed, and included two visits to England, and several to Germany, France, and Holland, respectively. About one hundred important public competitions have been arranged under the auspices of the Belgian society, including the principal ones for the Belgian Government and municipal buildings. Our contemporary *L'Emulation* is the organ of the Society, which founded it in 1874. Among other matters taken in hand by the executive, were the regulation of architects' charges, the definition of professional responsibilities, the formation of a mutual defence fund for the support of test cases and watching legal proceedings of general interest to the profession, &c. The Society also took up the question of diplomas for architects, and the formation of a special architectural college with a five years' course.

Lincoln's Inn Fields and the Garden.

IN accordance with a recommendation of their Parks and Open Spaces Committee (see the report in our columns of March 27) the London County Council are putting into repair the iron railing, with its dwarf retaining wall, around the garden. We are credibly informed that it is the original railing which replaced the earlier wooden post-and-rail upon the passing of an Act in 1735 enabling the residents around to levy a rate upon themselves in order to enclose and beautify the Fields, and to keep them free from the disreputable characters, cited in Gay's "Trivia," who used the ground as a common resort. The design of the then new palisade, which retains some of the lamp standards, was approved by the Duke of Newcastle, who lived in Powis House. The railing is about 2,100 ft. long. The Council, who voted 600*l.* for the work, will also widen the gateways to 7 ft.

Subterranean Quarries, Paris.

THE Municipal Administrative Authority of Paris has just published a very interesting account of the subterranean quarries above which entire districts, and those very populous, have been constructed. It appears from this document that the area of undermined streets is 771 hectares, and that, of the twenty arrondissements of Paris, seven only are exempt (the 1st, 2nd, 3rd, 4th, 7th, 11th, and 17th). All the others are in part undermined more or less extensively, especially the 14th arrondissement, Montrouge, where serious accidents have already occurred, and under which the honeycombing extends for 1,233,349 mètres. The total length of the streets which are undermined is 164,328 m., of which 69,322 have been underpinned. The park of Montsouris, the Buttes Chaumont, the Trocadéro, part of Montmartre, the Church of the Sacred Heart, &c., cover very extensive caverns. This condition of the Parisian terrain necessitates great precautions and incessant vigilance, and although during the last half century the subsoil of the capital has been upturned in all directions, the Survey Department believes that there may still exist under the streets other caverns quite unknown, which are not shown in the important publication issued under its care.

Ferniehurst Castle, Co. Roxburgh.

A DAILY contemporary says that the Marquis of Lothian has just restored portions of this highly interesting example of Scottish domestic architecture in the sixteenth century, which occupies the site of an earlier fortified stronghold on the Jed, within a short distance southwards from Jedburgh. The Kerrs of Ferniehurst—now represented by the Marquis of Lothian—with the Kerrs of Cessford (Dukes of Roxburghe), settled on the borders in the thirteenth century. Thomas Kerr, of Kerraheugh, built a castle in Jedburgh Forest, which he named Fairnhurst, or Ferniehurst, in or about 1470; it was ultimately destroyed in 1571 by Lord Ruthven. Its successor, which bears over the doorway "A. K., 1598," is L-shaped on plan, with an angle turret containing a wheel stair for access to the upper floors. Against the south end is a round tower whose first floor is a circular room, 7 ft. 6 in. in diameter, fitted for a library, the shelves resting on finely moulded and carved brackets, and having a beautiful wooden ceiling, with pendants. To the south stands a long two-storied building, called the chapel, which has a highly ornamented seventeenth century doorway. Views of the exterior and interior, with details and plan, are given by Messrs. D. Macgibbon and T. Ross in their "Castellated and Domestic Architecture of Scotland," to which work we are indebted for some of the foregoing particulars.

Lighting by Arc Lamps.

THERE is no system of lighting that requires greater care in its selection than lighting by arc lamps. The varieties of arc lighting are so numerous that only an expert can advise which is the best in any particular case. For interior lighting, although they have not become so popular as their advocates would like, yet steady progress is being made. The opinion prevalent amongst electricians that this system of lighting is ever so much cheaper than lighting by glow-lamps has been proved by some recent experiments of Professor Elihu Thomson to be founded on inaccurate data. He shows that the luminous yield of those lamps which have the arc enclosed in an inner globe is very little better than that got by incandescent lighting. He points out, however, that if we take into account the quality as well as the quantity of the light given out, this needs modification. The effect of the arc burning in the inert gases of the small globe is to produce a light much whiter than the light produced by glow lamps, and which is almost the same as daylight. Enclosed alternating current arcs, whilst possible, are not to be recommended, as they have the drawback common to all alternating current arc lamps of making a distracting hum. For lighting large areas, arc lamps in series are almost universally used, and some of the dynamos they use in America are capable of keeping three hundred of them alight at once, and the tendency is to make even larger dynamos. Whilst this system is economical, the very high voltage used makes special precautions necessary.

Sanitary Condition of Swanage.

IT is, perhaps, fortunate for the people of Swanage that Dr. S. W. Wheaton's report to the Local Government Board on the sanitary condition of Swanage, and on administration by the Swanage Urban District Council, has only just been made public, for the report, in addition to an account of some lesser evils, contains the following remarks in regard to the sewage of the town:—

"There are on the foreshore of Swanage Bay three points at which sewage is discharged, and in addition there are several private sewers from dwellings near the sea which discharge on the same foreshore. Of the three main points of discharge for sewage, two are situated at the southern end of the promenade and one at its northern end. The promenade is in the centre of the bay, and is nearly half a mile in length; the part of the foreshore below the promenade is sandy, and convenient for bathing, and here the District Council have marked off two bathing places, one for each sex. The bathing places and sands below the promenade are thus situated between two points of discharge for sewage. Many complaints have reached the Board from inhabitants of Swanage, and from visitors, respecting the nuisance arising from the deposit of sewage on the foreshore of the bay. With a rising tide the sewage from the main point of discharge at the southern end of the promenade can be seen to be carried directly towards the bathing grounds."

It appears that in 1893 the Swanage Local Board decided to provide sewers for the town, and the consent of the Local Government Board was obtained to the borrowing of 6,000*l.* for that purpose. In the plans submitted to the Board all the sewers were shown converging to an outfall sewer, by which the sewage would be discharged into the sea below low-water mark, at a place a little north of the southern headland bounding Swanage Bay. No outfall sewer has, however, been constructed, the Urban District Council having failed to carry out in its entirety the scheme of sewerage works which obtained the Board's approval. The 4,500*l.* spent have so far been of very doubtful benefit to the district. There is, indeed, now, discharge of a greater quantity of sewage through the old culvert, with consequent increase of the nuisance which had existed before on the foreshore abreast of the town, and which the new scheme was intended to remedy. If the original sewage scheme had been carried out, the sewage would have been carried away by the outfall sewer to a headland, with a view to being swept by the tide out of the bay.

The Sanitary Condition of Swiss Health Resorts.

THE summer season in the Alps of the Grisons is now at an end, and the numerous invalids who every winter resort to the Engadine, to Davos, and to Arosa, where the rarified air has such curative effects on diseased lungs, are beginning to proceed to their several hotels or pensions. It is desirable, therefore, to call attention to the absolute necessity for perfect sanitation in these places. Undoubtedly the sanitation inside the Swiss hotels is, on the whole, good, but it is doubtful if it is in an equally satisfactory condition so far as regards what may be called main drainage. Hotels and pensions keep increasing; they have the newest sanitary appliances, which they rightly count upon as likely to induce English people to resort to them. But this increase, spasmodic and without a plan, makes the main drainage of a locality more difficult. The visitor knows nothing about it, and, however good the sanitary arrangements may be inside a house, they are nullified if the general system of the place is defective. St. Moritz and Davos have grown almost into towns of late years, and Arosa is increasing, though it is, fortunately, yet far smaller than the two older places. But it has yet to establish a really good system of drainage. We refer to this matter, as the authorities in health resorts are less alive to

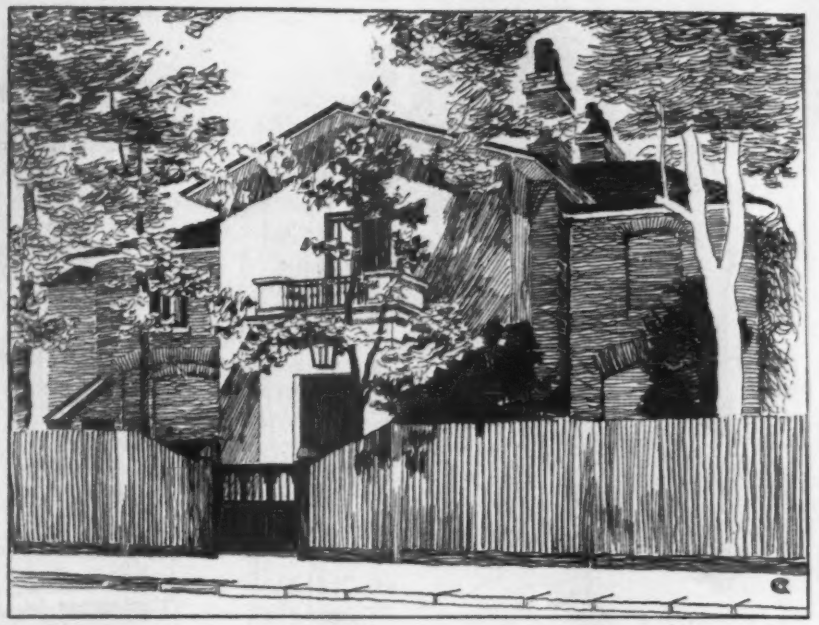
their responsibility than are the individual hotel proprietors.

Sanitary State of Bewdley.

DR. THEODORE THOMSON'S Report to the Local Government Board on the general sanitary circumstances of the borough of Bewdley is an interesting document in more ways than one. It deals with a borough which has a slowly decreasing population, and the death rate of which, in spite of the insanitary conditions which prevail, is not more than 17·3 per thousand, though the infant mortality has been considerable. The chief defects in the sanitary condition of the borough relate to the dwellings, the water supply, and the disposal of excreta and house refuse. Very many of the dwellings are old, badly lighted, dilapidated, and damp; "indeed," the inspector remarks, "of the large number inspected by me there were few that did not present some defective condition or conditions." The only means attempted of flushing the sewers is by emptying bucketsful of water down street gullies, the water being conveyed for this purpose in a water-cart. The three sets of sewers all discharge their contents in a crude state into the River Severn, each set having a separate outfall opposite respectively the north-eastern extremity, the centre, and the south-eastern extremity of the town. There are certain houses entirely unprovided with means of drainage. The inhabitants of these undrained houses either throw their slops on the yard surface or into the street gutter. The prevailing system of excrement disposal is by cesspit privies, which are in almost every instance offensive nuisances. The cesspit, usually of large size, is nearly always sunk a foot or more below the ground level; and in this pit large quantities of decomposing excrement and urine are allowed to accumulate. There are also a few pail-closets and water-closets. The Town Council of Bewdley pay a contractor to remove both excreta and house refuse. He is, however, entitled to charge the occupiers of houses, the excreta or refuse of which he has been asked to remove, a sum which may be 1s., 1s. 6d., or even more; in default of which payment he may refuse to undertake such removal, which then devolves on the occupiers, with the usual consequences. The water supply of Bewdley is derived in part from private wells and in part from public wells; in times of drought the water becomes very scanty, and, at the best of times, the quality leaves much to be desired. After more than ten years' procrastination, however, the Local Government Board have at last received from the Bewdley Town Council application for sanction of a loan of 4,000*l.* for purposes of water supply, and it is to be hoped that other sanitary improvements may follow.

Turner's House, Twickenham.

THIS house is to be offered for sale on the 21st inst. at the Mart. Sandycombe, originally Solus, Lodge, in St. Margaret's, Twickenham, was built, it is believed, for Turner, and after his own designs, for occupation by himself and his father, on his vacating his riverside house at West-end, Upper Mall, Hammersmith. The house, to which a pretty garden is attached, has been enlarged since his day. Turner's own residence was then No. 64, Harley-street, whither he had removed from Maiden-



Sandycombe Lodge, Turner's House at Twickenham.

lane, Covent Garden, in 1800, after his election as A.R.A. According to the memoir by Mr. R. N. Wornum, in his "Turner Gallery," Fo. 1861, Turner bought the ground at Twickenham in 1807, and sold the property in 1827. By another account he resided there during the interval 1814-26. Meanwhile he had built, in 1812, the house and picture gallery in Queen Anne-street West, which he retained until his death, though latterly only as a depository for his pictures. It was pulled down seventeen years ago, when the site was taken for new offices, No. 23, for the Duke of Portland's Estate. Turner died at his lodgings in the house at the western end of Cheyne-walk, Chelsea, on December 19, 1851.

Designs for New French Silver Coinage.

M. ROTY, President of the French Academy of Fine Arts, has presented to the Numismatic Museum on the Quai Conté, the series of designs that have been prepared for the new silver coinage which will be issued, with the exception of the five franc piece, before the close of the year. The series comprises four large scale models in plaster, three for the reverse and one only for the obverse, which represents France disseminating the Ideal through the world, illumined by the rising sun. The first design for the reverse is a torch placed on an olive branch; in the second the torch is replaced by a balance; whilst in the last design adopted by M. Roty for the reverse, with some slight modifications, an oak branch, a sheaf of wheat, and an olive branch are united within the legend "Liberté, egalité, fraternité," which is completed by the date 1897.

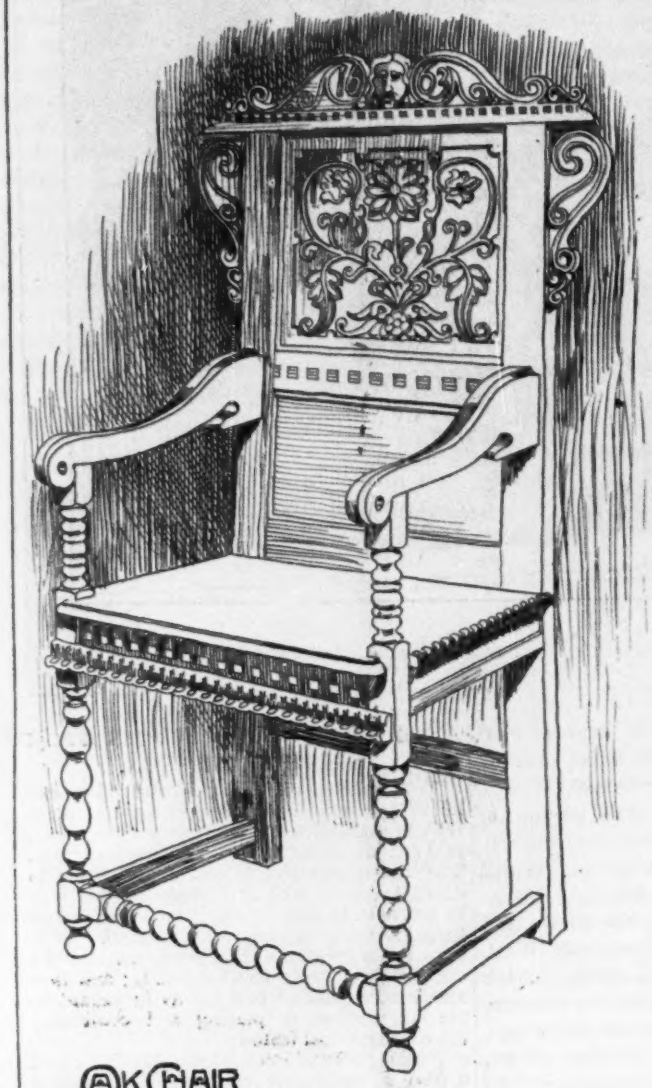
CITY ENGINEER AND SURVEYOR, NORWICH.—At a quarterly meeting of the Norwich Town Council, held on the 7th inst. in the Guildhall, the Mayor moved "That the salary of Mr. A. E. Collins, City Engineer, Architect and Surveyor, be increased from 600*l.* to 800*l.* per annum from June 24 last." He was sure that all the members of that Council were well aware that in Mr. Collins they had a most able and energetic engineer and surveyor, and that he was performing most excellently the many duties, and, he might truly say, the responsible duties, now devolving on him in the post which he occupied. There were in the city just now many works of importance, and on the making or the marring of these a great deal depended. Mr. Holmes seconded, and the motion was, after discussion, adopted, only one voting against it.

SOME FURNITURE SKETCHES FROM SOUTH KENSINGTON.

THE examples of furniture sketched here are all of one epoch, early seventeenth century, with the exception of the French table shown in fig. 4, which belongs to the previous century. They are mostly simple and unpretending in detail, but serve to show how much effect may be obtained by the moulding and shaping of the constructional parts of furniture, for it is upon this a great deal more than on the carved ornament that their effect depends; and they also illustrate one or two points in regard to the best manner of placing and combining the constructional features.

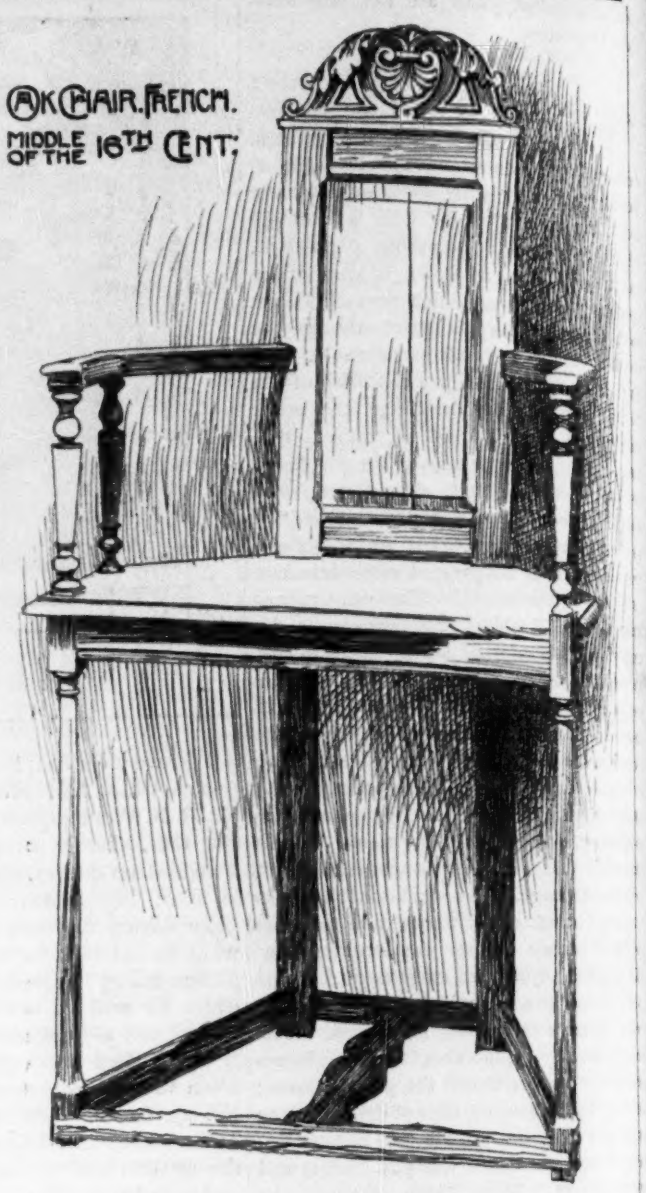
The English and French examples, figs. 1 and 2, form an instructive contrast. The English is the richest in effect, and a certain dignity is added to it by the prolongation of the top-rail of the back, supported by carved consols under the projecting ends; but the best portions after all are the treatment of the arms, shaped out of the solid so as to be convenient as well as agreeable in outline, and the simple beaded or spiral ornament of the legs and cross-rail, a method of treating wood work which was such a favourite in England during the Elizabethan and Jacobean periods. A good point in the design is that, though the front and side connecting rails are (necessarily) placed near the bottom of the legs, so as to tenon into the square portions of the latter, the back connecting rail, between the plain back legs, is placed at a higher level, so as to avoid the cage-like appearance formed by the four rails carried round on the same level and close to the floor. This will be seen on comparison with the lower portion of fig. 5, where the four cross pieces close to the floor have a decidedly bad effect; they ought at least to have been kept up to the top portion of the square part of the front legs. Fig. 2, though less ornate, is unquestionably a more refined and artistic piece of work than fig. 1, though slighter-looking; the plan of the seat and arms is better suited to the figure; the shaping of the legs and of the colonnettes supporting the arms is less characteristic and less sturdy-looking than in the English example, but it is more refined in line, and affords a good example of the manner in which a reminiscence of the Classic column may be used in furniture design, without attempting anything like an imitation of a stone architectural feature, which always looks weak when executed on a small scale as a miniature feature.

Fig. 3, another French example, has the same kind of merit as fig. 2, and is superior to it in fancy and delicacy of shaping and in the picturesque line of the arms; the only weak point is the piece at the back, which is awkwardly shaped and does not seem to belong to the rest. The table, fig. 4, also French, is very well designed in regard to the placing, shaping, and structural connexion of the legs; it would really be much better without the rather filagree-looking carving at



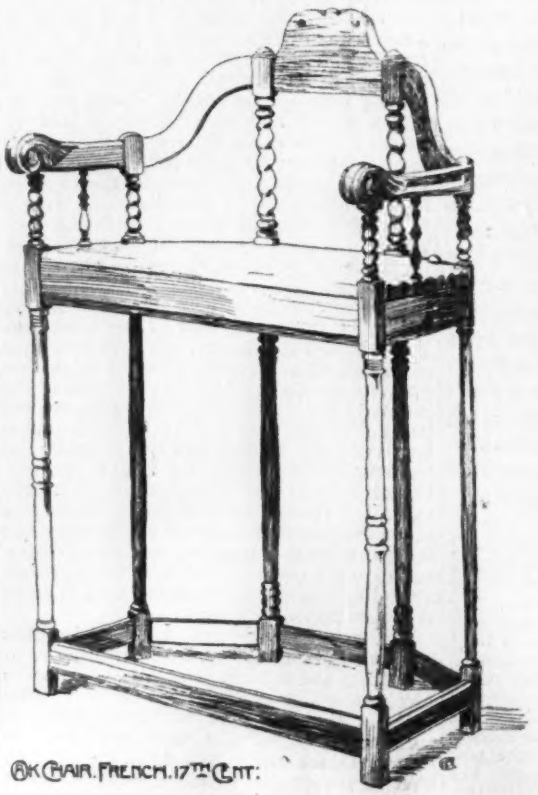
OAK CHAIR
ENGLISH. 1603.

Fig. 1.



OAK CHAIR. FRENCH.
MIDDLE OF THE 16TH CENT.

Fig. 2.



OAK CHAIR. FRENCH. 17TH CENT.

Fig. 3.

CARVED WALNUT WOOD TABLE. FRENCH. SECOND HALF OF 16TH CENT.

Fig. 4.

Fig 5

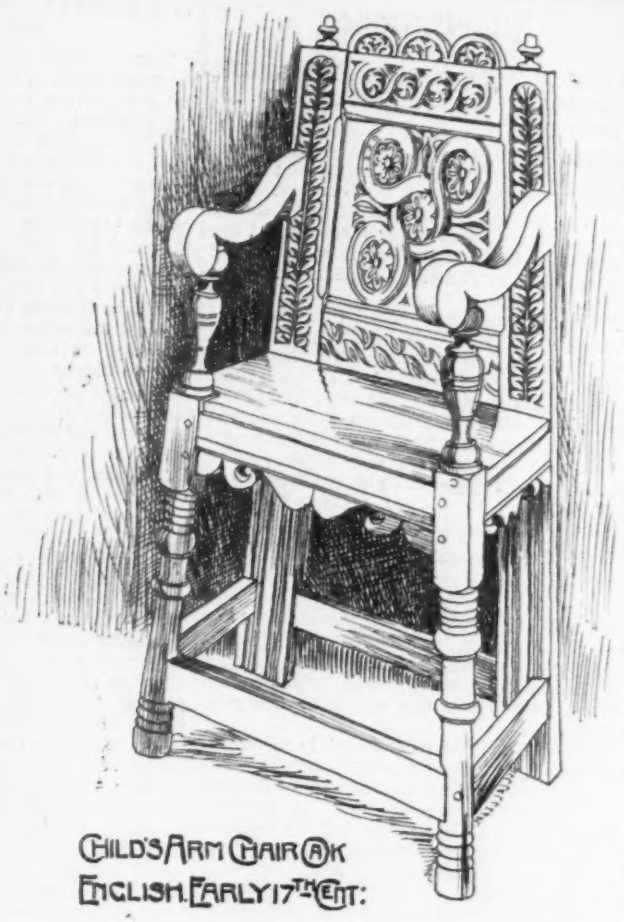


Fig. 6.

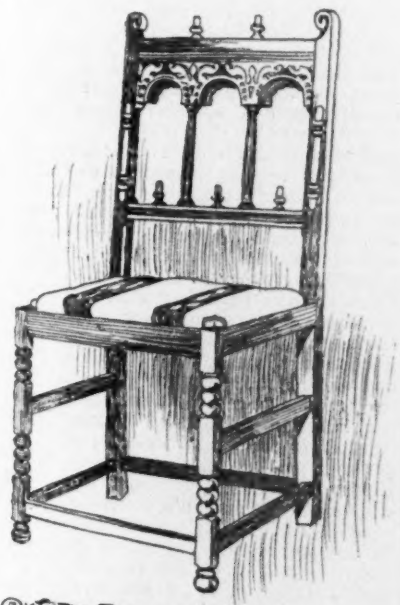


Fig. 7.

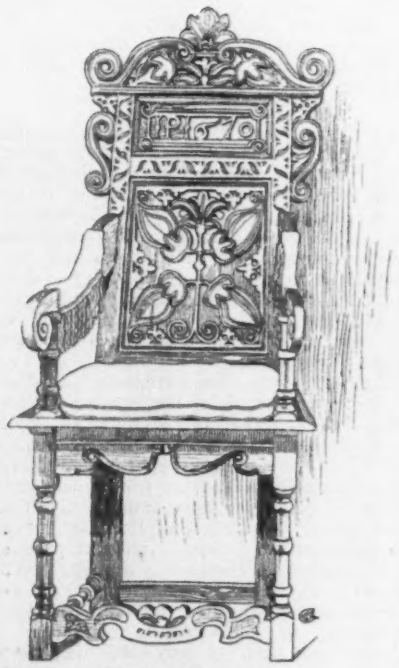


Fig. 8.

the top, between the supports, which is at variance with the simplicity and structural character of the rest of the work.

Fig. 5 we have already referred to as defective in the design of the lower portion, but as a child's chair it has the great merit of a wide base so that it is not easy to turn it over; there is a satisfactory pyramidal look about the whole, and the back slopes away at a convenient angle. In the other child's chair, Fig. 6, the back appears too upright for comfort; the legs and arms are effective and well designed; the bits of scroll-like ornament beneath the front and sides of the seat are defective, as they are so manifestly a mere bit of effect for the eye, and add nothing to the construction; if they were more like real brackets with some strength in them, and not cut away so close up to the seat, they would have been more of an improvement; as it is, they would have been better away.

Fig. 7 is in many respects a very good example of simple treatment of a chair; as before, it would have looked more graceful if the back-rail between the legs had been on a higher level than the others, instead of continuing the same line all round. The treatment of the front legs is simple but effective; the back, though pretty, comes a little too near the imitation of column and arch, and looks constructively weak, but the manner in which the small finials are inserted *between* the colonnettes on the lower rail, and centrally *over* them on the upper rail, so as to balance each other, is a pretty little point. Fig. 8 aims at being very ornamental, but it is not in such good taste as most of the others; the treatment of the legs and arm-supports, so as to leave projecting rings, as if fitted on to them, is unstructural, and takes away from the appearance of solidity. The manner in which the bottom rail in front is shaped so as to give a certain play of line, without losing its constructive value, is good, and the treatment of the side rails is well contrasted with the front and back, only again there are those objectionable projecting rings.

Students, in sketching and studying such objects in an art museum, should endeavour to consider wherein lie their merits and defects, if they have any, and not be content merely to admire them because they are old; otherwise the business of sketching them is of little value except as practice in handling the pencil.

RENOVATION OF NORWICH FREE LIBRARY.—Various works of renovation have just been completed at the Norwich Free Library, from the plans and under the direction of Mr. A. E. Collins, the City Engineer.

Illustrations.

SELBY ABBEY: TOWER AND SOUTH TRANSEPT AS PROPOSED TO BE REBUILT.

THE south transept of Selby Abbey was destroyed when the upper part of the tower fell in the last century. It is hoped to rebuild it when sufficient funds are forthcoming. The only parts remaining are Early Norman in style, but it was thought best not to follow these indications in designing the new transept.

The tower was reconstructed after the fall of the upper stages, but the modern portion was badly built and has become very insecure. It will be necessary to rebuild it at some time, but it is a serious question whether the ancient foundations, which have always been a source of weakness, should not first be underpinned.

The design shown for the upper part of the tower was suggested by an old drawing of the Abbey. J. OLDRID SCOTT.

COLCHESTER TOWN HALL.

THIS design was prepared with the idea that the moot hall, which is to seat 500 persons, could not be placed with safety higher than the first floor. It seemed that to place it upon the second or third floors was inviting disaster, and therefore not to be seriously considered. Upon this the whole of the plan turned.

It was also considered essential to provide a good police yard, in accordance with the conditions, and to keep the courts quite distinct from the rest of the building. A spacious entrance hall provided a dignified approach to the Council chamber and the moot hall, and the latter has a wide corridor adjoining, running the whole of its length, and affording numerous exits, with a staircase at each end.

A tower was provided solely because it was asked for in the conditions, and it was made of considerable size as being intended to commemorate the sixtieth year of her Majesty's reign.

So much was required for the money that a severely simple style of elevation seemed desirable, the more so as owing to the limited nature of the site every inch of space had to be utilised. E. W. M.

THE EMPEROR WILLIAM MEMORIAL, BERLIN.

IN August, 1895, we gave a plan of this memorial to the German Emperor William I., together with an illustration from a photograph of the sculptor's model. We give now three illustrations from photographs of the completed work; the central pedestal, with the equestrian figure of the Emperor led by a figure of Victory; one of the terminations of the architectural screen which forms the background to the central group; and an intermediate portion of the screen showing the treatment of one of the main piers and the sculptural group surmounting it.

As before stated, Herr Reinhold Begas, sculptor, was the nominal and responsible artist for the monument; but there were a good many other hands at work in it. Herr Gustav Halmhuber carried out the architectural detail; the quadrigæ at the extremities of the screen were modelled by Herr Karl Bernewitz and Herr Johannes Götz; and other work was done by Messrs. Karl Begas, Cauer, Breuer, Kraus, and Gaul. The bronze casting was carried out by Messrs. Gladenbeck & Co. and Messrs. Martin & Tilzing.

The monument does not, we believe, by any means represent the wishes of the German people generally; the intention was originally to have erected something like a Pantheon or Temple of Fame; but the reigning Emperor practically took the matter into his own hands, employing the sculptor of his own choice (who appears to be a kind of court favourite); and the memorial is rather to be regarded as a private and personal monument than a national one.

Without displaying anything remarkably original or refined in conception or execution, it is nevertheless a spirited work with a good deal of vigour in some of the sculptural decoration.

FREE CHURCH, STRUY, INVERNESS.—This church has just been opened. Messrs. Ross & Macbeth were the architects.

THE SANITARY INSTITUTE CONGRESS AT LEEDS.

THE sixteenth Congress of the Sanitary Institute, which opened at Leeds on Tuesday, has attracted the largest number of members yet recorded. The proceedings commenced with a reception held in the Town Hall by the Lord Mayor of Leeds, Sir Jas. Kitson, M.P.

After a luncheon given in the Victoria Hall of the Yorkshire College, the inaugural address of the President of the Congress, Dr. R. Farquharson, M.P., was given in one of the class-rooms. Among the leading points of the paper was the proposal that drastic legislation should be resorted to for the purpose of giving to local authorities power to acquire land compulsorily in order to carry out effectually the provisions of the Act for the Better Housing of the Working Classes and to acquire the means of obtaining for workmen cheap and rapid railway travelling.

In the evening was opened the Health Exhibition, organised in connexion with the Congress by Mr. Knight, the curator of the Parkes Museum, on a large site in Camp-road, belonging to the Smithfield Club Show Committee. After visiting the various exhibits, the Lord Mayor formally declared the exhibition open. In doing so, he referred to the large part Leeds and Leeds inventors had taken in the advancement of sanitary science and sanitary engineering. He could quite understand why the collection of sanitary and health appliances they had just inspected formed the most extensive exhibition the Institute had yet held. It was because they had come to the centre of a great and industrious population. To such a community health was of the greatest value, because on it depended the strength of hand, the clearness of head, and the strength of body, without which no industrial community could prosper. He was glad to find that Leeds had done so much for sanitary science, because it had itself received so many benefits from that science. They would the more readily understand him when they learnt how remarkably the death rate had diminished in Leeds as compared with the time when he himself was beginning life. It was then over 30 per 1,000 annually, but at the present time only 20 per 1,000. That meant that 4,000 lives were annually saved now, as compared with the rate of mortality prevailing at the beginning of the century. Votes of thanks were subsequently accorded to the Lord Mayor and to the judges.

The discussion of the various questions to be brought before the Congress commenced on Wednesday, when the members met in conference in six different rooms of the Town Hall and of a neighbouring building. The six conferences were on River Pollution, the Work of Municipal Representatives, of Sanitary Inspectors, of Municipal and County Engineers, of Medical Officers of Health, and Domestic Hygiene.

Sanitary Inspectors.

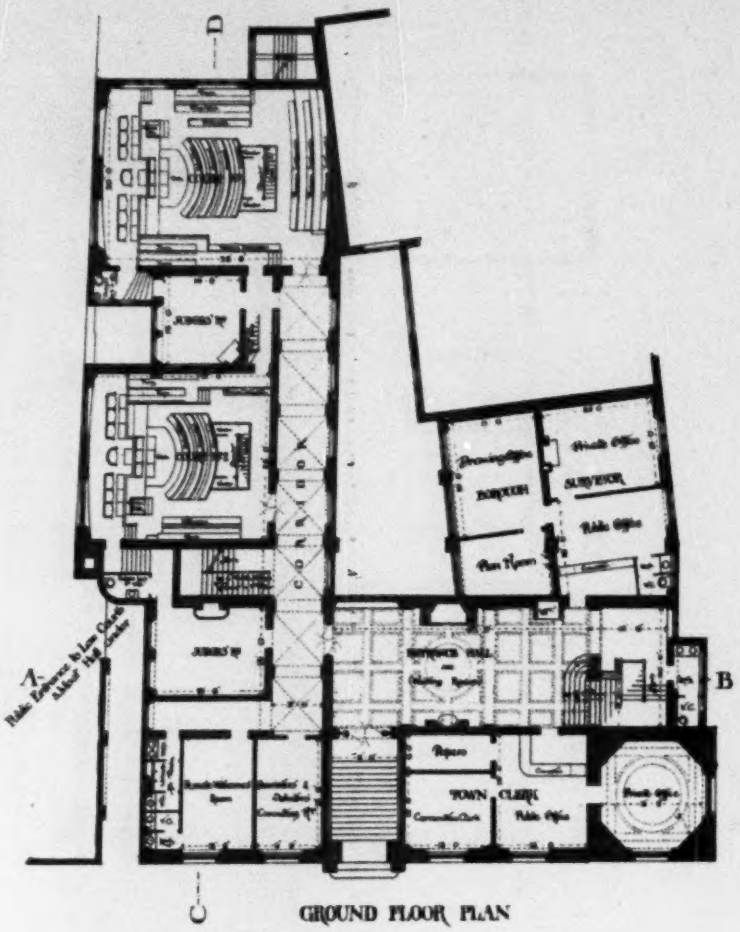
For the first time this section had a member of its own body to preside over its deliberations. The President of the conference, Mr. Peter Fyfe, Chief Sanitary Inspector of Glasgow, read an introductory paper in which he addressed himself chiefly to the atmospheric conditions prevailing in factories and workshops. In the domicile, legislation had done a great deal towards securing better atmospheric conditions, but phthisis still prevailed, with but little obstruction, in factories and workshops, particularly in such as were occupied by girls. He gave, as an illustration of the shortcomings of the latest Act, that of 1895, the conditions prevailing in a large hall in Glasgow in which forty girls were usually employed. It was admitted by all authorities that, to maintain proper conditions, 120,000 cubic feet of air per hour must be admitted to such a room. But not half that amount could be admitted from outside without producing the sensation of continuous draught. With a fourth of the scientific minimum the air would contain ten volumes of the index of impurity instead of six, the scientific maximum. The Government limit of 250 cubic feet did not, in his opinion, render healthy conditions possible in workshops without accidental or induced ventilation, which, in winter time, was impossible, unless the air was previously warmed. Quoting the views of Drs. Parkes and de Chaumont, he stated that if the air could be warmed to a certain point in cold climates a smaller cubic space might suffice. The authorities named had said "The subject of ventilation is, in cold climates, connected inseparably with that of warmth, for it is impossible to have efficient ventilation in cold weather without warming the air." The Sanitary Inspectors, who were now the official sanitarians, were in need of three things chiefly—First, a systematic and high class course of instruction and examination; second, an equitable scheme of union between all Sanitary Inspectors' Associations; third, a legalised basis upon which every inspector might feel absolutely secure both as to the tenure of his office and the comfort of his old age.

A paper was read by Mr. W. H. Crane, Port Sanitary Inspector (Hull and Goole), on "Our Seamen's Dwellings Afloat." He said that his Port Sanitary Authority had under consideration the following matters in which improvement was absolutely necessary: (*a*) greater cubic space per head; (*b*) the covering in of all ironwork; (*c*) the provision of bath and lavatory accommodation for the crew. In the case of a ship, as in that of a house, there should be a thorough inspection of all structures, such as that made by urban sanitary authorities in the case of buildings on land.

The subject of "Smoke Abatement," introduced by Mr. John Sumner, Chief Sanitary Inspector of Wigan, produced an animated discussion. The following is an abstract of the paper:—

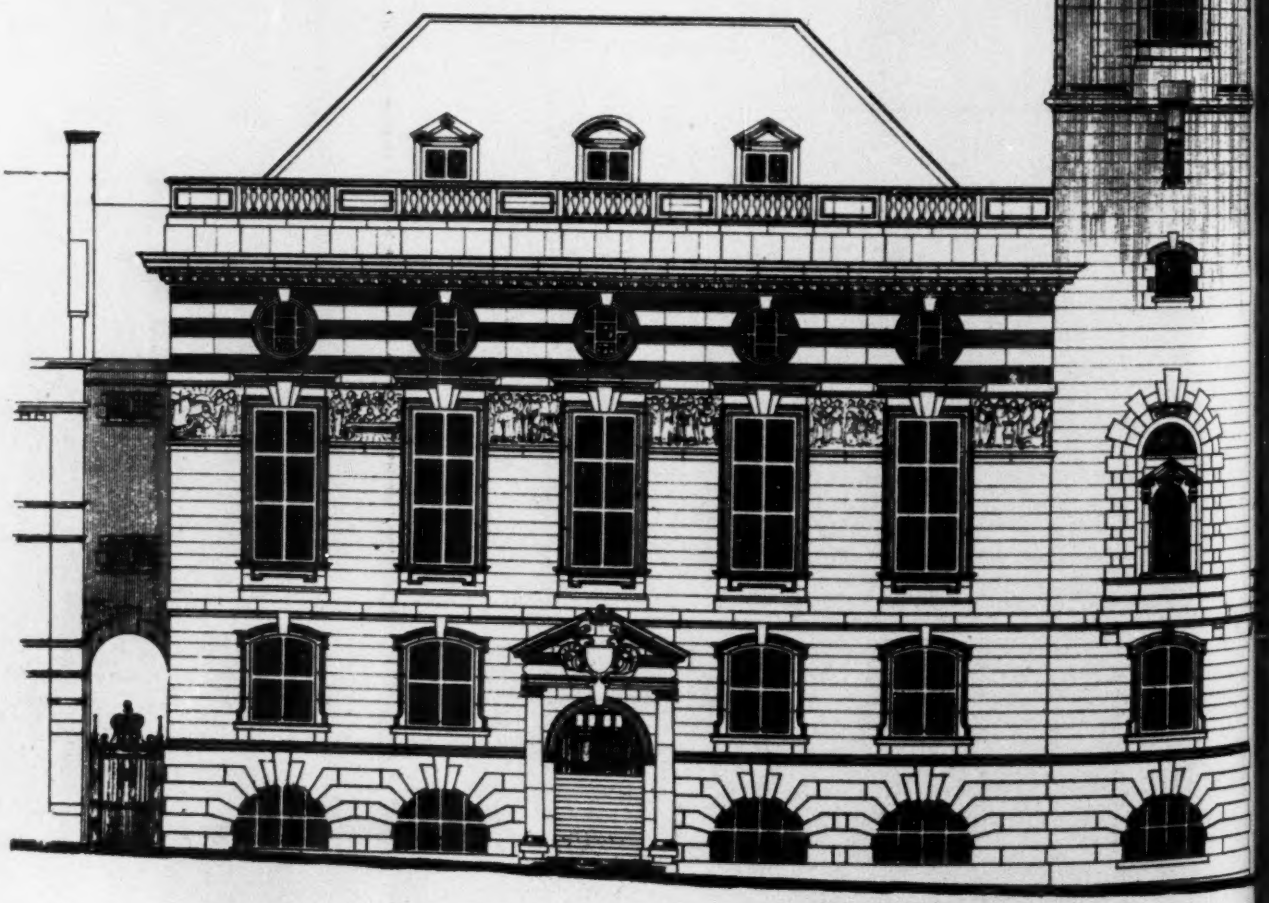
Nuisances arising from dense black smoke issuing from the chimney stacks of works are very common, and still very offensive, and ought to be more stringently legislated upon than they have been in the past, more especially as it has been so often shown that the nuisance can be easily remedied by the owners. Our local authorities are in some districts so lax in the administration of that section of the Public Health Act, 1875, relating to smoke nuisances, that the words therein contained are simply a farce, and the efforts of the Inspector a dead letter. The problem of smoke abatement was getting rather ancient, and was legislated upon as far back as 1819, and since then several select Committees have been formed and have reported to the House the result of their inquiries, with the result that the clause relating to smoke nuisances was inserted in the 1875 Act, followed by a proviso that entirely eradicated its usefulness. Many offending manufacturers asserted that the consumption of dense black smoke caused more injurious (though less visible) gases to escape in the atmosphere, but this could be at once passed over, because experts conclusively proved that such was not the case, because light and dense smoke contain the same substances, though in different degrees of mixture. The production of smoke was no economy to the manufacturers but a waste of money in the shape of unconsumed fuel. From correspondence that he had had from a number of sanitary inspectors he found that a great many were almost asked to let the smoke nuisance alone, and in at least two instances the sanitary authorities had said they wished they had a lot more smoke—it was a sign that trade was flourishing. In towns of that kind any effort an inspector might make to try and remedy such a state of things met with rebuffs, and he was of opinion that some central authority should take the matter in hand and appoint inspectors to take observations and report direct to them, the same as the inspectors under the Alkali Acts; in such a way only could this great evil be properly dealt with and effectually remedied. A great many manufacturers tried to make a set of boilers do far more work than they were able to, to the detriment of the atmosphere. Many different kinds of apparatus were on the market for the prevention of smoke, all of which we supposed had some good point to recommend them to the manufacturers, but a very great deal depended on the height of chimney, mode of firing, fuel used, and boiler space. The experience of Mr. A. E. Fletcher, Professor Ripper, and others, tended to show that the emission of dense black smoke could be avoided, or, if not wholly removed, could be so minimised as to be no nuisance, and that this had not been effected before now was a serious blot on our sanitary legislation.

Mr. Denby (ex-Smoke Inspector, Leeds) said, after many years of nearly unfruitful effort, some improvement was observable in the prevalence of the smoke nuisance in Leeds. They had reduced from ten minutes to four the legal time when black smoke might be permitted to emerge from factory chimneys, and the Corporation was spending a thousand pounds A



GROUND FLOOR PLAN

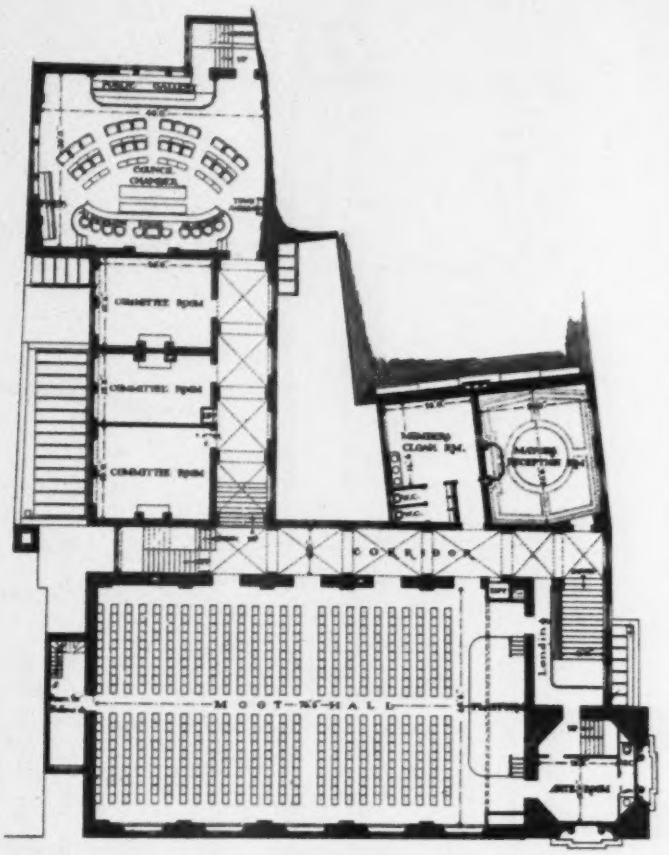
SCALE OF FEET



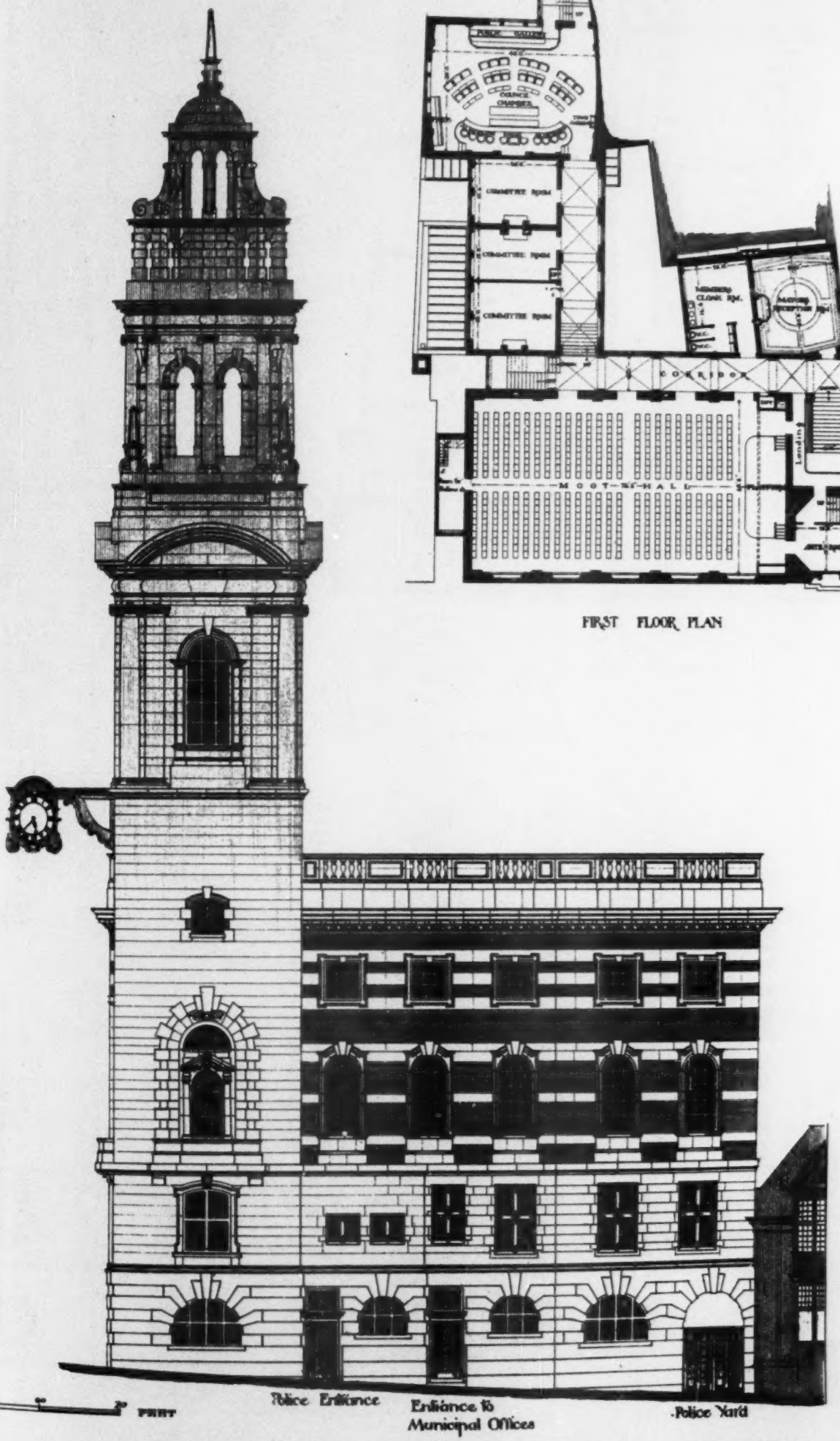
SCALE OF FEET

ELEVATION IN HIGH STREET

COLCHESTER TOWN HALL, THIRD PREMIATED DESIGN



FIRST FLOOR PLAN



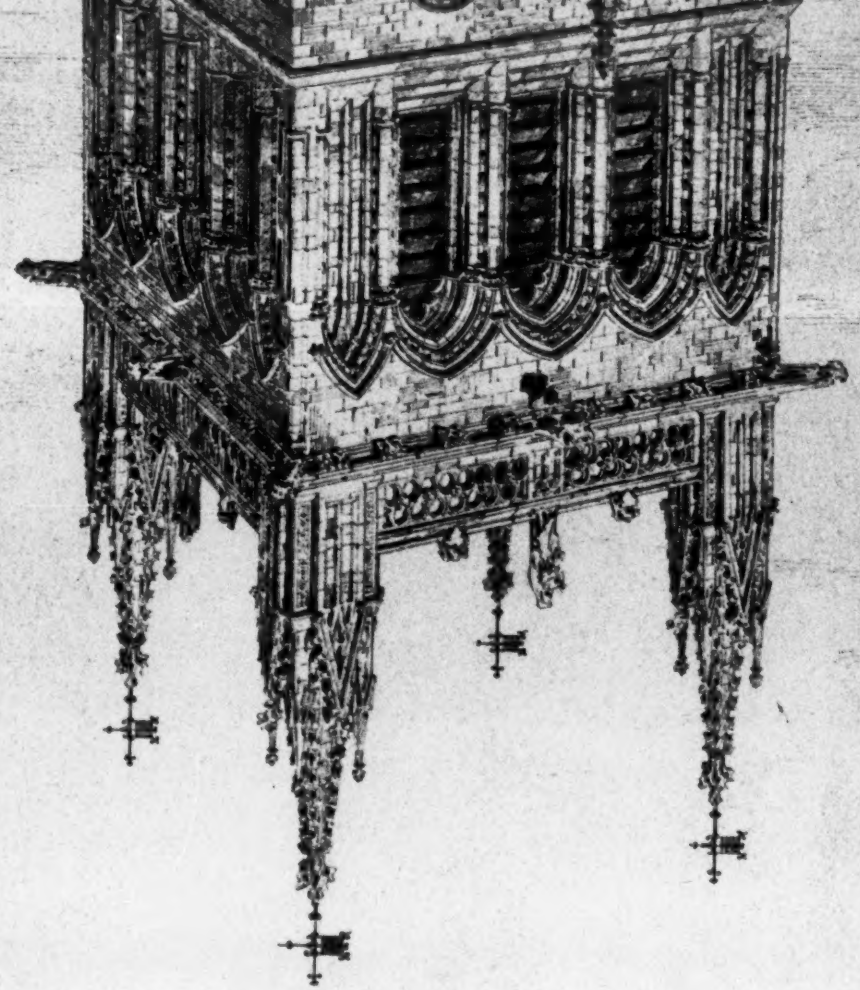
ELEVATION IN WEST STOCKWELL STREET

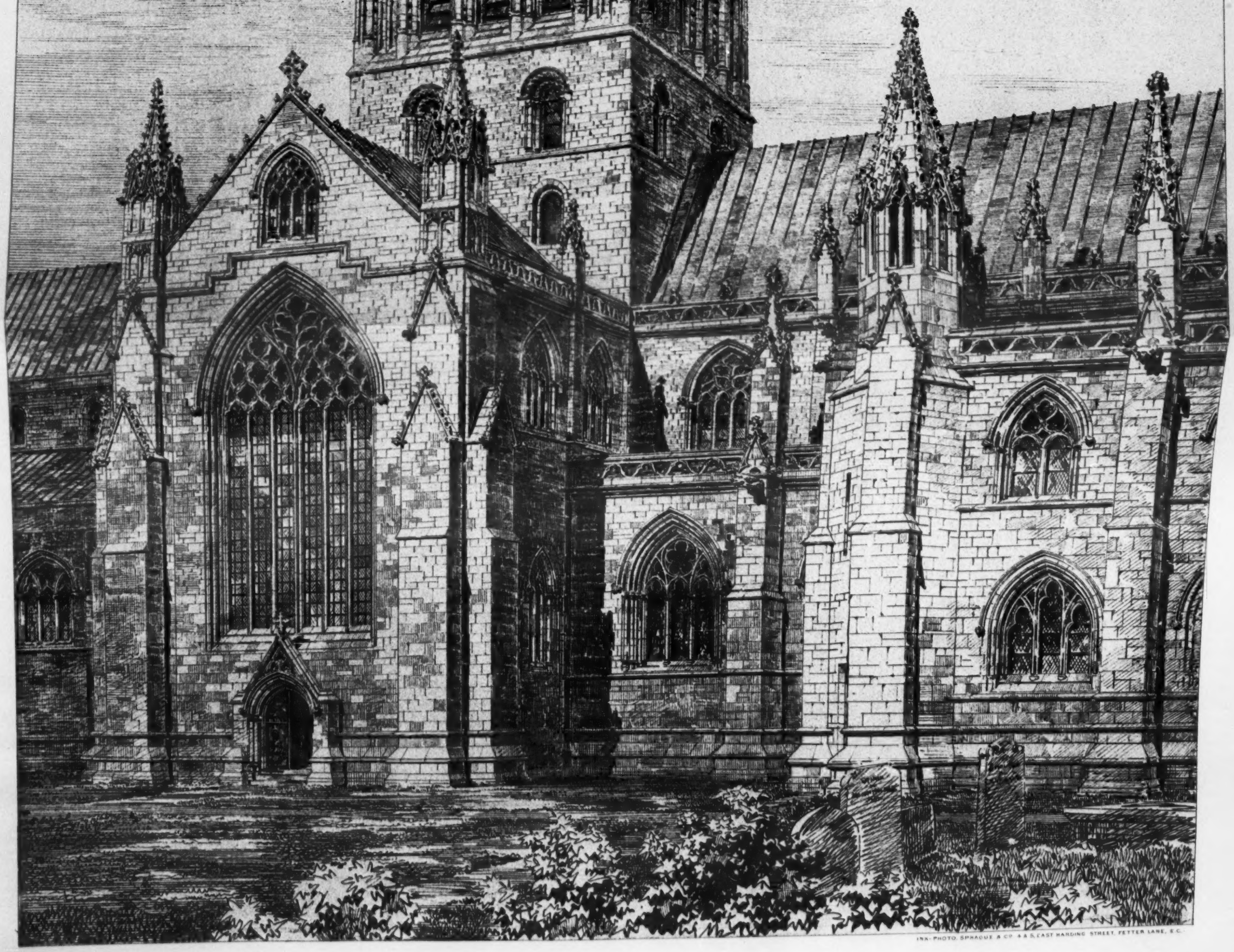
PHOTO-LITHO. SPRAGUE & Co 493, EAST HARDING STREET, FETTER LANE, E.C.

DESIGN.—By Mr. E. W. Mountford, F.R.I.B.A.

INK-PHOTO. SPRAGUE & CO. 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

SELBY ABBEY: PROPOSED RE-BUILDING OF SOUTH TRANSEPT AND TOWER.—Mr. J. Oldrid Scott, F.R.I.B.A., Architect.





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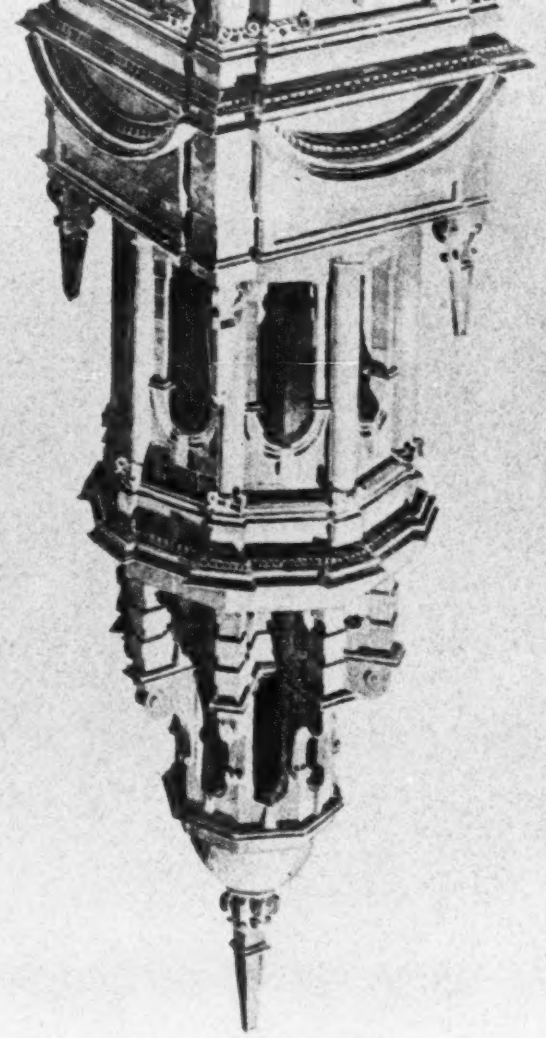
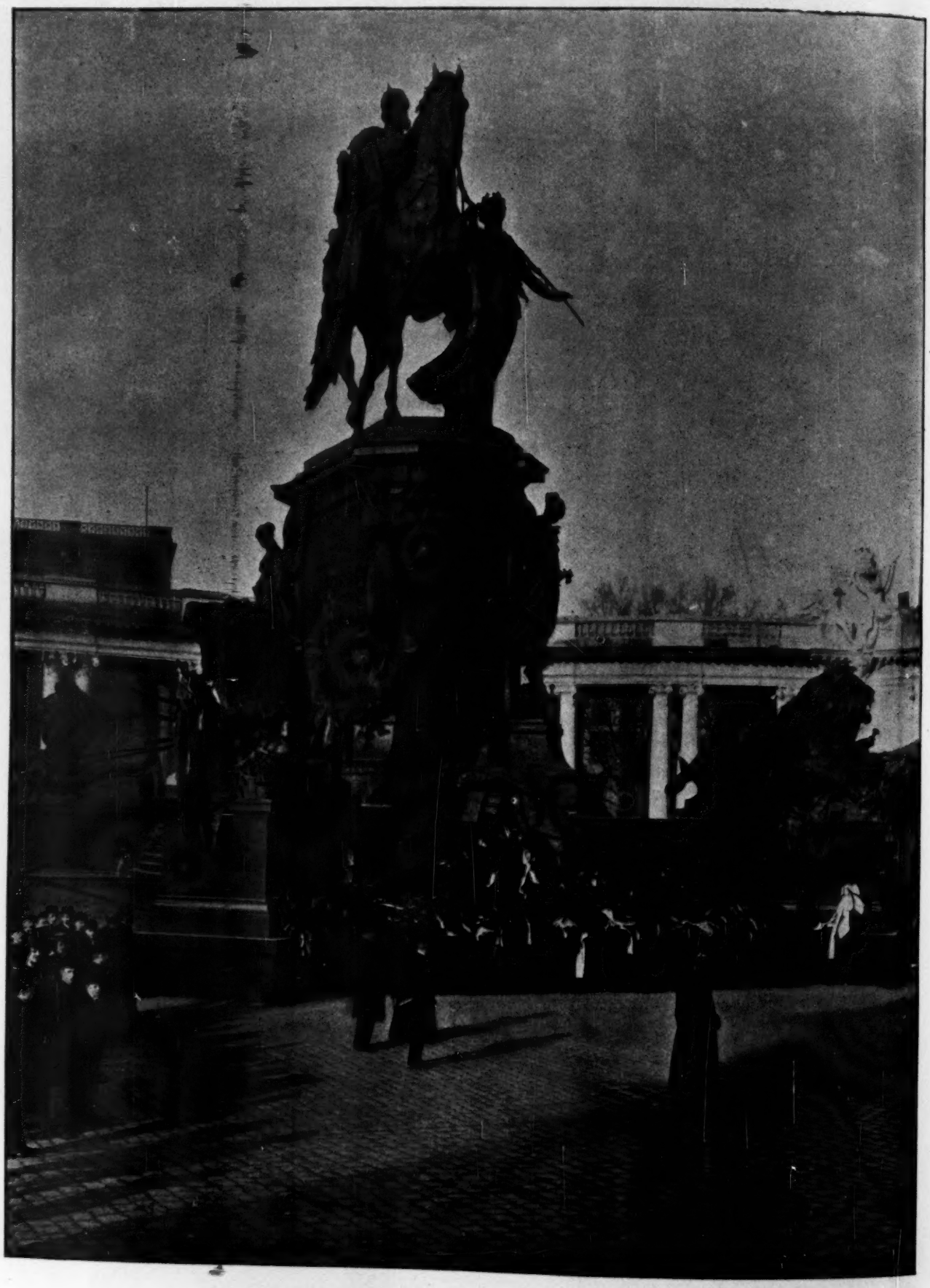


COLCHESTER TOWN HALL, THIRD PREMIATED DESIGN.—By Mr. E. W. Mountford, F.R.I.B.A.



THE EMPEROR WILLIAM MEMORIAL, BERLIN.

CENTRAL FEATURE.

THE BUILDER, SEPTEMBER 18, 1897.

TERMINATION OF ONE SIDE OF THE ARCHITECTURAL SCREEN.

ONE OF THE PIERS IN THE SCREEN.

THE EMPEROR WILLIAM MEMORIAL, BERLIN.

year on the encouragement of smoke consumers and mechanical stokers.

Mr. Wicksteed (Leeds) said more odium was cast upon manufacturers than they deserved in the matter of producing black smoke. Statistics showed that on a Sunday, when the factory chimneys were quiescent, the impurities in the air were only 25 per cent. less than on week days. This showed to what a great extent the domestic fire was accountable for the nuisance.

Our report will be concluded next week.

THE AUCTIONEERS' INSTITUTE.

On the invitation of a local committee, the Council of this Institute held its quarterly meeting last week, in Cardiff, the Council meeting being preceded by a conference of London and provincial members representing most parts of the United Kingdom. The principal business of the conference was the consideration of a proposal made by a number of members of the profession in South Wales and Monmouthshire to become affiliated to the Institute. In accepting the proposition on behalf of the Council, Mr. J. F. Field, President of the Institute, acknowledged the welcome which had been extended to them.

In support of the application for affiliation, at the Council meeting held subsequently Mr. D. T. Alexander, who headed a deputation from the local committee, pointed out that there were in South Wales many usages connected with the profession which were purely local, and to a large extent unknown in other parts of the country. Individuals could do but little to reform such customs, and they felt that by affiliation to a corporate body their hands would be strengthened. They had the example of the Surveyors and other professional bodies possessing Institutes which had done much to raise the status of members. Another speaker pointed out that as their profession demanded all the energy and intelligence that could be brought to bear upon it, the sooner they insisted on a qualifying examination the better. After the withdrawal of the deputation the Council decided, after full discussion, to accede to the proposition, and to take the necessary steps for the formation of a branch of the Institute for South Wales and Monmouthshire.

A correspondence with the London School Board on the subject of surveyors' fees next occupied the attention of the Council. A resolution was carried approving the action of the President in regard to the fees claimed by surveyors in the acquisition of property for School Board purposes, and it was decided to leave the matter in his hands and the hands of his committee, pending a reply from the London School Board. Mr. Harris, the secretary, reported the acquisition of books, and of donations amounting to 40*l.*, for the library in Chancery-lane, and an accession to the membership of nearly 100 since May last, the total now standing at over 900, instead of 834 at which it stood at that date.

After the business meetings, excursions to the Barry Docks, to Dinas Powis, and to the Dowlais Iron Works, were organised, and entertainments were held, including a banquet, which was attended by the Mayors of Cardiff, Swansea, Newport, Neath, Oxford, and other members of Corporations.

COMPETITIONS.

Police Station, Halifax.—The first subject considered by the Halifax Town Council at its monthly meeting on the 8th inst. was the desirability of rebuilding or adapting the old infirmary in Harrison-road for police purposes. A recommendation was made by the Watch Committee that the "Victorona" plans of Messrs. George Buckley & Son, of Halifax, which provide for an entirely new building on that site, not to cost more than 11,600*l.*, be accepted. The Mayor moved their adoption, reminding the Council in doing so, that although architects had been invited to send in plans the Council did not bind themselves to give the work to one or other of the prize-winners—which were "Diamond Jubilee," "V. R.," and "Municipal." Neither of these were acceptable, and the four left were "Victorona," "Efficiency with Economy," "Rex," and "15,265*l.*" The last-named, also "Efficiency with Economy," which was estimated to cost 14,900*l.*, were out of the question because of the expense; "Rex," which would run to 10,600*l.*, likewise could not be considered, because the Borough Engineer said it did not conform to the specifications; and they came to the conclusion that, with slight alterations, "Victorona" might be recommended with confidence. The price in this case was 11,600*l.*, while the cost of a building reared on the lines of "Municipal" would be 12,500*l.*, "Diamond Jubilee" 12,990*l.*, and "V.R." 12,852*l.* Naturally the Committee's view was that if they could have a new building for 11,600*l.*, with slight modifications, they had better consider whether these alterations could not be made. The Engineer, after consulting with the architects who had sent in the "Victorona" plans, said the alterations could be made, and they would not entail additional cost. He had now pleasure in informing the Council that the architects were willing to enter into an agreement guaranteeing that the estimated cost should not be exceeded if their plans were accepted.—Councillor Smith having seconded the motion, Alderman Hodgson submitted an amendment in favour of adopting Mr. Escott's adaptation scheme, estimated to cost 9,000*l.* The alterations required in Messrs. Buckley's plans, instead of being slight, were very great ones, in fact, he called it adapting new plans to an elevation which Messrs. Buckley had prepared. The "Diamond Jubilee" plans, in Mr. Escott's opinion, had both the best elevation and internal arrangements, and "Victorona," he also said, came next in respect of elevation, but internally they were bad and would not suit. Since then Messrs. Buckley had prepared a plan which was different altogether, and he contended that the architects of the "Diamond Jubilee" plans ought to have been given a chance along with Messrs. Buckley in bringing further plans before them when it was felt further plans were necessary. Councillor Bottomley seconded the amendment, which was defeated, 14 voting for the adaptation scheme and 29 against.—*Halifax Evening Courier.*

Correspondence.

To the Editor of THE BUILDER.

THE TABERNACLE, MILTON ABBAS.

Sir,—My attention has been called to your notice of our church in the issue dated August 14. As I am the author of the "foolish project" referred to, may I be allowed a word in reply. The publication of the appeal for the restoration at the time of the archæological meeting was (at great personal inconvenience) so arranged that the opinions of those qualified to give an opinion might be heard. This object, I think, has been attained, but I cannot understand why discourtesy should so largely enter into questions of archæology. The structure at Milton Abbey has been called a tabernacle for sixty years, is so called in Hutchins' History of Dorset, and was so called by A. W. Pugin and Sir Gilbert Scott. We are very glad to hear another opinion, but not to receive vituperation in return for our efforts to get at truth. A glance at our appeal would show how impossible it is for us to do anything at present, and in the meantime we welcome all courteous criticism. There are two slight inaccuracies in your account of the church; the nave was never built, and the tabernacle is not in its original place, as a reference to Hutchin's History of Dorset will show.

E. H. Bousfield,
Vicar of Milton Abbas.

TO AMBITIOUS ARCHITECTS AND OTHERS.

Sir,—As there are a number of ambitious architects and others who would like to have titles after their names to show the world that they are fully qualified and learned in their profession, I will just let them know how a pupil of mine, fifteen years of age, obtained his. He simply filled in his name, address, and whether he wished to describe himself as "Fellow" or "Associate" (he selected the most important one, "Fellow") on a post-card kindly sent by the Secretary of the "Institute of Architects and Surveyors;" almost by return of post he received his diploma and a letter to say that he had been elected a "Fellow." This entitles him to write the important letters "F.I.A.S." after his name. If a boy fifteen years of age is elected a Fellow, what are the Associates, and why should any one be without his degrees when he can obtain them without any questions being asked by simply filling up a post-card? The headquarters of this title-giving institution is in Chancery-lane, London.

Differently Supplied.

*** We have referred two or three times to the doings of this sham "Institute," but the story recited above is even beyond what we could have thought possible.—Ed.

EFFECT OF IRON ON TEAK.

Sir,—Some thirty or forty years ago my family were ship-builders and repairers, and numerous teak-built ships, both East and West Indian, came for repairs. I have seen taken out of these ships massive timbers, perfectly sound except where the iron bolts and fastenings were used.

I have seen the teak perished for a distance of 2 in. to 3 in. all round the bolt holes, and the bolt reduced in proportion to its size. Where trenails of wood were used the teak was perfectly sound. Many years after I prepared a large quantity of teak work for abroad, but the foreign architect specified that it should all be fastened with wood pins.

Lately, I have had a specification put in my hands from a hot-water engineer for teak sinks for butlers' and glass pantries, and the engineer assured me they used all copper fittings from the same cause.

Joiners working it say that so far from it being oily, it contains a sandy grit that causes their tools to lose their cutting edge quickly.

It is otherwise a splendid wood, and its almost entire immunity from shrinkage is greatly in its favour.

I may add I have had no experience of Burmese teak, and knowing the great difference between the East and West Indian varieties, I could easily believe that the Burmese would be free from the fault of the others. Robert Phillips.

The Student's Column.

QUANTITIES AND QUANTITY-TAKING.

Chapter IX.—Modes of Measurement.

Joiners' Work.

THE measurement of joiners' work, with perhaps the single exception of masons' work, demands a more intimate acquaintance with the methods of preparation and construction than any other portion of building work, although the methods of measurement are extremely simple. One fact should be distinctly stated, and that is whether the dimensions and thicknesses of the work are *net* when finished, or whether subject to an allowance for waste. Some architects specify that $\frac{1}{16}$ of an inch will be allowed off the thickness for each wrot surface, and this is, perhaps, the best system, as it is frequently found when measuring joiners' work that, while the work is slightly over a certain definite dimension, it is not sufficient to allow another $\frac{1}{4}$ in.—a $\frac{1}{4}$ in. being considered the smallest variation in thickness necessary to take note of. If, therefore, some such note is made, the surveyor will be able to take a distinct and unassailable position when noting the thicknesses and sizes of the work he is measuring.

The joiners' bill being generally the longest of the series, it is usual to subdivide the items under headings to a larger extent than in the other trades, in order the more easily to find individual items in the bill.

The items in deal appear first in the bill, subdivided under headings of "Floors," "Skirtings," "Doors," "Windows," &c. The items in hard wood follow under their respective headings in the same way, the rough rule being to bill the woods in the order of their respective values, commencing with the cheapest.

This sub-division will be followed in this chapter, which while following the general method is, of course, open to variation according to the individual taste of the surveyor.

Floors.

Boarded Floors, per square superficial.—Give description of boards, stating thickness, whether wrot or rough, widths of boards, description of joints, whether "folding," "straight joints," "rebated and filleted," "grooved and tongued with loose tongues" (state whether wood or iron), "grooved and tongued on solid," or other description, and whether secret nailed; also the kind of heading joints in the lengths of the boards, and if to be cleaned off at completion. Measure flooring net, deducting chimney breasts and hearths. Take raking and circular cutting and waste at *per foot run*, also mitred borders to hearths, stating width and thickness. *Number* cutting and fitting to small circular corners, and around columns, &c.

Block floors, per yard superficial.—There being so many different patents for this, each one having its admirers, it is frequently specified at a p.c. price. The manufacturers generally claim an addition to the net superficial measure of the girth of the room of 3 in. as an allowance for waste. It will generally be

found that the cement bed has to be provided by the builders, and also plugs or blocks in the concrete for fixing the borders.

If no p.c. price is given, state size of blocks, with the labour to edges of same, and the pattern when laid, and whether bedded in tar, &c.

Parquet floors, per foot superficial.—Generally a p.c. price laid complete. *Note* that a counter floor has to be taken for this in addition.

Skirtings, Chair Rails, &c.

Skirtings, per foot run, giving full description. If moulding in any way elaborate state girt; and if double-faced mention the sizes of each member. *Note* that a double-faced skirting, if both members moulded, is "double faced and double moulded." Include the grounds and backings with the descriptions, keeping those plugged to brickwork separate, or number fixing blocks. *Number* mitres (external and internal), housings, scribings, returned ends, &c. Where a skirting is tongued to the floor, describe this with the item, and take a length of "groove in floor, part cross grain (done in position)."

Chair rails, &c., per foot run.—The rules for measuring skirtings may be generally followed for dado rails, picture rails, and similar work.

Doors and Framings, &c.

Doors, per foot superficial.—State thickness and number of panels, and description whether "square," "moulded," "bolection moulded," "bead flush," "bead butt," &c., one or both sides, and if panels raised and mitred, and if moulded on raising. State also whether mouldings are stuck on solid. If any unusual arrangement of panels, give sketch. It is advisable to take separately any planted or face mouldings (except to panels) at *per foot run,* including the grooves (if any), with the items, stating if "stopped." *Number* returned ends, &c., to these mouldings. *Note* that in measuring folding doors, the width of the fold (generally an inch) is added to the width of the doors, the rebates being included with the doors, and taking at *per foot run* any mouldings, &c., at meeting. If any panels are open for glass, incorporate in the description, stating if stiles diminished, and if sashed mention number of squares. Measure at *per foot run* the beads or mouldings around glass, stating if bradded or fixed with brass screws and cups.

Framings, per foot superficial.—State thickness, number of panels in height, and, if panels are of exceptional size, mention this, and describe as above noted for doors. If any portion of the framing is irregular in shape measure this net and describe the shape, and also mention the fact that it is "measured net." Doors in framings are frequently *numbered* as "Extra over framing," giving the size, number of panels, &c. Measure the rebates, beads, stops, &c., at *per foot run.*

Windows, &c.

Sashes and Frames, per foot superficial.—Give thicknesses and full description of parts of boxings, and how put together, also sizes and descriptions of sills, the thickness of sashes, and whether square, chamfered, or moulded, and if the latter, description of moulding. How sashes are divided, *i.e.*, whether in one square each, small squares, or otherwise; and if bars of exceptional width, state this. Describe whether single or double hung, the kind of lines, axle pullies, and weights. *Note.*—If glazed with plate glass lead weights will be required.

If sashes are in more than one light—*i.e.*, have mullions—keep these separate, stating the number of lights; give a description of the mullions, whether solid or cased, and the number of lights hung, and how. If, as is sometimes the case, the sashes and frames have a transome, measure this at *per foot run* as an extra over sashes and frames, and if fanlights above are hung *number* these, averaging the sizes. The *angle* mullions to a bay window should also be measured as an "extra."

In taking the dimensions, unless the frames show externally, allow 9 in. in the width, and 3 in. in the height, beyond the size of the external opening.

If windows have shaped heads, measure them square, and keep separate, describing the shape.

At the end of each item should be stated the number of frames contained in the dimension, to enable the contractor to judge of the average size, as "(in No.)."

Splayed edges to sashes and splayed meetings should be included with the item, but, should there be any exceptionable labour here, measure separately at *per foot run.*

Casements and Frames.—Some surveyors measure these complete at *per foot superficial,* including casements, frames, and sills, and this system answers very well in the case of very ordinary windows, say, to cottages, &c., but where the work is of a better class and rather more elaborate description it is a far better plan to take the work out in detail. In fact, where there is any great variety, it will be found in the long run a saving of time, besides giving a much better idea of the work involved. The trouble of writing fresh descriptions, or, if a variation only on description, the difficulty of keeping each quite distinct is avoided by this system, and in the case of works of any extent the variety is interminable. In following the latter system, measure sills, frames, mullions, and transomes at *per foot run,* including all the labours, and the casements at *per foot superficial,* describing the thickness and if chamfered or moulded; if the latter, the description of moulding whether hung or fixed, the number of squares, and how divided, as described in "Sashes and Frames," and also noting the number of casements with each item, as "(in No.)."

If casements have shaped heads, measure these square and keep separate, describing the shapes.

Bull's-eye casements are frequently *numbered,* and this is probably the better plan, and if very small, include the frames with the item.

Circular frames will require keys and wedges taken to the joints as *numbers.*

The heads and sills are usually measured 9 in. longer than the width of external opening, and the jambs 3 in. higher than the height of same.

If casements are hung on centres, take sets of cut beads *both sides* averaging the lengths and billing as *numbers.*

Any labours to casements, beyond a splayed bottom rail, should be measured separately at *per foot run.*

Fanlights and Borrowed Lights, per foot superficial.—These are usually billed under the heading of windows, and the rules for measuring casements will apply generally to these.

Door and Window Finishings.

By these are meant generally all the work in connexion with doors and windows, such as frames, linings, window backs, window boards, shutters, grounds, architraves, &c.

Linings, per foot superficial, if over 4 in. wide; if under, at *per foot run.* State if rebated one or both edges or tongued, and include the backings. If linings are panelled, state the number of panels to each set and whether moulded or square or otherwise. If panels are shaped, it is advisable to take this as an "extra" item as a *number.* Where linings are tongued to frames, take a groove at *per foot run,* except in the case of a solid frame measured separately, when the groove will be included in the description.

In good work the ends of linings are tongued to the window board. *Number* these, giving the lengths as an average, and include the groove with the item.

Splayed jamb linings will require an item of splayed edge at *per foot run.*

Frames, &c., per foot run, giving sizes and full descriptions of the labours.

Window Backs, per foot superficial.—Give thickness, and, if panelled, description of panelling as described for "doors and framings," and include the backings. Take housing at ends at *per foot run* if linings run down to floor. *Note,* that skirting fixed to a window back is wrot both sides, and described as "plinth planted on."

Window Boards, per foot superficial if over 4 in. wide; if under, at *per foot run.* State thickness and finish of front edge—*i.e.*, rounded, moulded, &c., and whether tongued to sill. For the latter, take at *per foot run* an item of "groove in oak, teak, or deal sill," as the case may be, unless the sill is measured separately, in which case include with the item; include the bearers with the window boards. Take bed moulds at *per foot run,* stating whether tongued to window boards; if so, include the groove. *Number* splayed ends, notched returned ends, notches, mitres, rounded corners, and any other labours on the window-boards and bed-moulds. *Note.*—If the bed-mould is a deep one, a ground will be required, unless on a window back. If window-boards are under 4 in. wide they are generally described as "nosings." *Note.*—Take window-boards long enough, and of sufficient projection to stop the architraves, and to cover the bed-moulds.

Sliding shutters, per foot superficial, stating thickness and description of panelling. *Number* lines and weights, including the axle pullies, giving full description, and take at *per foot run* the boxing, giving full description, and sizes and thicknesses of the various portions.

Folding Shutters, per foot superficial, unless in narrow widths (*i.e.*, under 9 in.) in which case measure at *per foot run.* Give thickness and whether panelled and if so whether moulded, square, or otherwise, keeping the back flaps separate. If measured at per foot superficial take the rebates, &c., at *per foot run,* but if shutters, &c., are measured at per foot run include same with the item. Measure shutter backs at *per foot superficial,* describing whether panelled or plain and include the backings, &c. *Number* elbow caps, soffit linings, &c., stating size and thickness and describing the shape.

Grounds, per foot superficial, if merely splayed and over 4 in. wide; if under this width, or if moulded, or double-faced, or in any degree elaborated it is advisable to measure at *per foot run.* Describe grounds to doors and windows as "framed." Keep *circular* grounds separate, describing whether on plan or elevation and giving the radius.

Architraves, per foot run, stating size and full description, if of special moulding to detail, give sketch if difficult to describe; if of stock pattern state this. Include mitres with the item unless exceptional, and keep *circular* architraves separate as described to grounds. *Number* plinth blocks, giving size and shape, and take architraves long enough to allow for framing to plinth blocks, and include this in description of the latter.

General Note.—Allow on length of frames, linings, grounds, architraves, &c., for crossings at angles.

In deal work if any of the plain items are over 9 in. wide, describe these as "cross-tongued" and keep separate from the remainder. This will apply to all deal joiner's work throughout.

GENERAL BUILDING NEWS.

RESIDENTIAL MANSIONS, HAMPSTEAD.—A block of residential mansions is now in course of erection on the site of "The Forge," West End-lane, N.W. There are to be three self-contained flats on each floor, with separate main entrances. The building will be fitted with electric light. Messrs. P. Palgrave & Co., of London, are the architects.

CHURCH EXTENSION, FARNWORTH, LANCASHIRE.—The corner stone of the new church now in course of erection in the parish of All Saints', Moses Gate, was laid recently by the Mayor of Bolton. Mr. R. K. Freeman, architect, of Bolton, has prepared the plans, and the building is being erected under his supervision. The new church will stand on the north side of the present schools, and will be surrounded by streets on three other sides, the principal front being towards Devon-street. The plan consists of nave with side aisles, chancel, with chancel aisle or transept on the north side, and a side chapel on the south. The land falls considerably towards the back, and this has been turned to account by placing the vestries under the chancel. The vestries are divided by a movable screen, thus enabling them to be used as one room for parish meetings, &c., when desired. A staircase connects with the ground floor of the church, and the entrance to the vestries will be on the lower level. The side chapel has been arranged so that it may be used in connexion with the main building, or separately, for week-day services, and will have a separate entrance. The organ will be placed in the loft over the north transept, but the key-board will be placed near the choir, on the ground floor level. A feature of the design is the arrangement of the ambulatory at the east end of the main building, and also to the side chapel. The principal entrances are on the north and south sides, that on the south having a large porch, and being so arranged that a tower can be erected in connexion with it when funds are available. The materials used are red brick, with dark red Ruabon terra-cotta. The roof is to be covered with north-country green slates, and all the internal wood work will be of pitch pine unvarnished. The chancel floor will be of encaustic tiles, and the windows will be glazed with cathedral glass in geometrical patterns tinted, and in lead lights. Messrs. J. B. & J. Entwistle, of Kersley, are the contractors. Accommodation will be provided for 586 worshippers.

RESTORATION OF BOOTHBY PAGNELL CHURCH.—This church has just been reopened after restoration. The exterior of the building has been renovated where necessary, a new oak roof having been put on and covered with slates. In the tower the three bells have been rehung by Messrs. Mears & Stainbank, of Whitechapel, the belfry has been

restored, the lower story groined, and a stone staircase erected leading to the belfry and organ-chamber. A new vestry has been added on the north side of the church. The floors in the aisles and nave are laid with Staffordshire tiles and wood blocks. A carved oak pulpit on a stone base has been erected. In the chancel, the screen is carved in oak, and surmounted by a crucifix and figures of Our Lady and St. John. The floor is in marble and alabaster, and the choir stalls are of carved oak. The altar is also of oak. In the centre is a representation of the Crucifixion, on the right the Annunciation, and on the left are angels. The Lady Chapel on the south side has also a marble floor. It contains an altar, and is surmounted by figures of Our Lady and St. Andrew. The old font in the baptistry at the west end of the south aisle has been renovated, and a carved oak cover furnished. There are sixteen windows in the edifice, and all are now filled with stained glass. A feature in the improvements is the opening out of the Norman arch at the west end, and the throwing of the ground floor of the tower into the body of the church. The churchyard has been extended and enclosed with a stone wall. The entrance is through a lych gate on the south side of the church. The architect was Mr. J. L. Pearson, R.A., and the plans have been carried out under the direction of Mr. E. T. Price. The builder was Mr. J. Thompson, of Peterborough. The marble flooring and re-table were supplied by Mr. Davinson; the stained windows, &c., by Messrs. Clayton & Bell, London; the heating apparatus by Messrs. Perkins & Sons, London; the brass altar rails, gates to the chancel screen, lamps, and wrought iron work by Messrs. White & Son; altars, font cover, and bishop's chair by Messrs. Moose Bros., London; and the carving by Mr. Nicholls, of London.

RESTORATION OF PAYHEMBURY CHURCH, DEVON.—This church was reopened by the Bishop of Crediton on the 9th inst., after an extensive restoration, which included rebuilding south nave wall and general repairs to all walls, and a new roof, except a few principals on the north aisle. The church is covered with Broseley tiles. The ceiling is oak boarded, with longitudinal and cross ribs, and in the chancel diagonal ribs, with oak bosses at each intersection. Carved oak angels support the feet of cross ribs in chancel and over rood screen. The whole of the plastering is new, as well as the floors. The remains of a niche having been discovered in the north wall, a new one was inserted on the old lines, and an alabaster statue of the Virgin and child placed in it. The rood screen has also been thoroughly restored, and also the seats. A new parclose screen, font cover, priests' stall, and lectern, have been provided, all carved in oak. The chancel ceiling and the portion of ceiling over rood screen, also screen and niche, have been decorated with gold leaf and colours. Mr. G. H. Fellowes Prynne was the architect; Mr. J. Northcote, Ashwater, the carver; Messrs. Fouracre & Sons, Plymouth, the decorators; and Mr. A. Loxston, Spaxton, Somerset, general contractor.

PRIMITIVE METHODIST CHAPEL, MORLEY.—Six memorial stones were laid recently of the Birks New Primitive Methodist Chapel and School, in Bridge-street, Morley. The chapel is arranged on the ground floor, with sitting accommodation for 250 adults. At the entrance end is a vestibule, and at the opposite end are placed the choir stalls. The school is underneath the chapel. It is 31 ft. 6 in. by 30 ft., and 12 ft. high, and will accommodate 300 scholars. Adjoining the school is an infant school and preaching room, to accommodate forty persons, and one class-room, to hold twenty. The building is to be erected with local stone; and the woodwork throughout is to be executed in pitch pine and varnished. The building will be heated on the low-pressure system, and the works will be carried out by the following contractors:—Masons, Messrs. J. & J. Sugden, Morley; joiner, Mr. George Elliott, Hanging Heaton; slaters, Messrs. Sharp & Harper, Leeds; plasterer, Mr. E. Wilson, Morley; and plumber, Mr. W. Auty. The building is to be erected from the designs and under the supervision of Mr. T. A. Buttery, architect, Morley.

SCHOOLS, SEDGLEY, STAFFORDSHIRE.—On the 7th inst. the new Board schools erected in Bilston-street, Sedgley, and known as "The Queen Victoria Schools," were opened by the Chairman of the Board. The schools are divided into three departments, accommodating altogether about 970 children, besides which provision is made for a Board-room. The exterior of the schools is of bricks, with stone dressings. The lavatories are lined with glazed bricks, with dressings of Kingswinford bricks. The roofs are of Staffordshire tiles. The buildings have been erected by Mr. T. Jones, from plans of Mr. A. P. Brevitt (Architect to the Board). The building contract was 5,850*l.*

CHURCH, GREAT YARMOUTH.—On the 9th inst. the foundation stone of a new church, to take the place of the mission buildings at the north end of the town, was laid at Yarmouth. The new church is being constructed to accommodate about 300, the building having a brick base, above which the walls will be half-timbered, the whole being of a Gothic character. The roof will be tiled, and an oak bell-cot will be erected at the west end instead of spire. The completed church will consist of a nave 60 ft. by 30 ft.; chancel, 20 ft. by 17 ft.; organ chamber, vestry, and porch. The nave and porch are the portions that will be first completed. Messrs. Bottle & Olley are the architects, and Mr. W. Cork is the builder.

CO-OPERATIVE PREMISES, MIDDLESBROUGH.—On the 8th inst., the Mayor of Middlesbrough (Col. S. A. Sadler) laid the foundation stone of the new co-operative buildings in Linthorpe-road, Middlesbrough. The premises are at the corner of Linthorpe-road and Clifton-street. The whole building will be divided into four shops—grocery, drapery, boots and shoes, and butchering. Included in the buildings will be store rooms, &c., offices, directors' room, and a public hall. The following firms are carrying out the various contracts:—For excavating, bricklaying, masonry, &c., Messrs. W. & H. Pounder; for plastering and cement concrete work, Mr. J. R. Smiles; for carpentry and joinery Mr. W. Thompson; for slating, Mr. J. Harrison; for painting, Mr. J. H Hill; and for plumbing, glazing, and gasfitting, Messrs. Walton & Garthwaite. The architect is Mr. Councillor Walter G. Roberts, of Middlesbrough. The total cost will be about 10,000*l.*

WORKHOUSE INFIRMARY, SELLY OAK.—In our last issue, in the description of the Workhouse Infirmary, Selly Oak, we omitted to mention that the whole of the wards are warmed and ventilated by means of Messrs. E. H. Shorland & Brother's patent Manchester stoves with descending smoke flues.

BOARD SCHOOLS, NORTH SHIELDS.—The Chairman of the Tynemouth School Board has just placed in position a medallion of Her Majesty, in the new building at North Shields which is to be known as the Queen Victoria School. The school, which is being erected from the designs of Messrs. Marshall & Dick, architects, Newcastle, whose plans were selected in competition, will occupy a position at the corner of Coach-lane and Lovaine-place, North Shields, and when completed will accommodate 1,350 children, and in addition there will be a large cookery school for fifty girls. The first section of the scheme has been entrusted to Mr. Joseph Elliot, contractor. Mr. Moore is acting as clerk of the works. The school is being built on the central hall system.

SCHOOL, RIPLEY, DERBYSHIRE.—The formal opening of St. John's new infant school at Ripley took place on the 10th inst. The architect of the new school is Mr. T. Lee, of Ripley; the contractor, Mr. W. Harris, of Marchay, Ripley.

PROPOSED FREE LIBRARY, HUDDERSFIELD.—A meeting of the Huddersfield Free Library and Art Gallery Sub-Committee was held on the 10th inst., at Somerset Buildings. Mr. W. Cooper, architect, presented plans showing provision for circulating and reference libraries, a news-room, and an art gallery. The plans were approved.

SCHOOL EXTENSION, HUDDERSFIELD.—Mr. J. Whiteley Shaw, Vice-Chairman of the Huddersfield School Board, opened the newly enlarged Board School at Spark Hall, Longwood, on the 9th inst. Mr. B. Stocks was the architect.

HALL AND SUNDAY SCHOOL, WIGAN.—The foundation stones of the new Primitive Methodist Central Hall and Sunday Schools to be erected in Station-road, opposite to the premises of the M., S., and L. Railway Company, were laid recently. The total accommodation provided will be over 600, the hall and gallery seating 400 persons; but the class-rooms have been so arranged that, by means of glazed screens, more than 500 will be able to see the rostrum. The architect is Mr. J. B. Thornley, and the builder is Mr. Jno. Johnson.

RESIDENTIAL FLATS, BRONDESBURY.—A new building is about to be erected in Callcott-road, Brondesbury, parallel with High-road, Kilburn, to be called "Callcott Court," with a frontage of 140 ft. The block will consist of residential flats, with extended right and left wings, designed in the Georgian style. It is intended to arrange a front lawn, or court, with a gravel sweep, garden-seats, and a sun dial in centre of lawn. Messrs. P. Palgrave & Co., Westminster, are the architects for the work.

BUSINESS PREMISES, NEWCASTLE.—Messrs. John Grabham & Co., wholesale drapers and manufacturers, of Newcastle, have just entered upon new premises on the site of the old Congregational Church, Clayton-street West. The building is five stories in height, each of the six floors having a superficial area of about 670 yards. Access to each floor is gained by a large central staircase, constructed of mahogany. The works have been carried out by Messrs. Middlemiss Brothers from design, and under the superintendence of Mr. Benjamin F. Simpson, architect, of Newcastle-on-Tyne. The sub-contractors were:—R. Herron, plumber; A. Robertson & Son, painters; and George Rule, plasterer.

CHURCH, HORWICH, LANCASHIRE.—The new church, which it is proposed to dedicate to St. Catherine, has just been commenced at Horwich. Including spire, it will cost over 7,000*l.*, and will accommodate, when finished, 780 worshippers. Owing to want of funds, the nave and aisles only are to be built at present, at a cost of about 4,000*l.* The plans are by Mr. F. M. Palmer, architect, and the church will be built of Ruabon brick, with stone facings.

CATHOLIC SCHOOL, CRIEFF.—This new school has just been opened. It has been named "St. Dominic's School." The new building is of Dunmore sandstone. The total cost is 1,000*l.*, and space is allowed for 130 scholars. The plans and other arrangements are by Mr. T. Monteath, Crieff and the contractors for the different branches are—mason, A. Crerar; joiners, Monteath Brothers; plumber, A. Thomson; slaters, S. Drysdale & Sons; plasterer, J. Tainsh; painter and decorator, T. Edwards.

CATHOLIC CHURCH, BOHERMEEN (CO. MEATH).—The new Catholic Church at Bohermeen, Co. Meath, was opened on the 5th inst. The architect is Mr. William Hague, Dublin, and Messrs. Smith Brothers, Kells, were the contractors. The new church is erected on the site of the old one. It is in the Gothic style, and consists of nave, transepts, and chancel, lighted by lancet windows. The roofing is open timbered with panellings. The floors are wood, with encaustic tiled passages. The church is built of native stone, with cut-stone dressings, and the walls are strengthened by buttresses.

ACADEMY, DUMFRIES.—The new Dumfries Academy was opened on the 3rd inst. by Sir R. T. Reid, M.P. The new academy was designed by Mr. Frank J. C. Carruthers, of Lockerbie and Dumfries. It has occupied two years in the building, and it will cost 16,000*l.* The site is the same as that of the old academy. At the principal entrance there is a portico formed of four Ionic columns, 30 ft. in height, and 3 ft 6 in. diameter at the base, with corresponding pilasters on the face of the building. The tympanum over the portico has been filled in with plain stone, but it is proposed to enrich it with full-size figures in three-quarter relief of local celebrities. Surmounting the building is a dome, supported by four winged lions set diagonally. The front elevation is enriched with carved panels. The class-rooms are entered from a central hall having a gallery on each of the four sides, from which the upper rooms are reached; and to the rear of the main building are workshops and a gymnasium.

RESIDENTIAL FLATS, KILBURN.—The familiar landmark at the top of Shoot Up Hill, Edgware-road, and known as "The Old Mill," Kilburn, is to be demolished, and a block of residential flats is to be erected upon the site with a return frontage to Mapesbury-road. The new building is to be faced with red brick and stone, and will contain in all sixteen complete sets of residential flats. Messrs. P. Palgrave & Co., Westminster, are the architects, and the building is estimated to cost 12,000*l.*

BAPTIST CHURCH, GOVANHILL, LANARKSHIRE.—The memorial stone of the new Victoria-place Baptist Church, at the corner of Langside-road and Batterbiggins road, Govanhill, was laid recently. The church, which is designed by Messrs. Stark & Rowntree, is to seat 600 persons. It is built of red and white stone. The total length of the building, which extends down Langside-road on the east, is 85 ft., and the frontage to Butterbiggins-road is 70 ft. There will be two halls, a large one, and a smaller on the west side, which overlooks a large vacant space leading to Victoria-road. There is to be a platform, but no pulpit, with a baptistry at the back. The total cost is 3,100*l.*

MODEL LODGING-HOUSE AT MOTHERWELL, N.B.—On the 31st ult. the plans of a new model lodging-house, to be erected by the Lanarkshire Model Lodging-house Company, in Orbiston-street and Meadow-road, Motherwell, were lodged in the Dean of Guild Court. The design has a frontage showing two circular turrets at the angles, and an arched decorated doorway in the centre. Accommodation is provided for 316 lodgers, with four special rooms for warders, and a manager's house, from which there is a private entrance to the different parts of the building. The dining-room is 55 ft. by 34 ft.; recreation room, 65 ft. by 34 ft.; and the kitchen, 35 ft. by 20 ft. The estimated cost is 6,500*l.* The building, which is to be erected from plans prepared by Mr. Alexander Cullen, architect, Hamilton and Motherwell, is to be called the Victoria Home.

BOARD SCHOOLS, FENTON, STAFFORDSHIRE.—The formal opening of the new schools erected by the Stoke-on-Trent United District School Board, in Queen-street, Fenton, took place recently. The school is planned on the central hall system. The exterior is of red brick with stone dressings, and tile roofs, with a tower over one entrance for water supply tanks and a bell. Accommodation is provided for 660 in all, half boys and half girls. The central hall is 81 ft. by 38 ft. There are six class-rooms, each 25 ft. square, two class-rooms 25 ft. by 22 ft., and two class-rooms 34 ft. 6 in. by 22 ft.; two teachers' and two book and store rooms, and four cloak-rooms and entrances. The flooring is of pitch-pine blocks, and the heating is by low-pressure steam. The contractor for the general work was Mr. John Bagnall, of Fenton; the block-flooring was by the Wood Block Flooring Co., of London; tile dados by Messrs. Minton, Hollins & Co., of Stoke-on-Trent; painting by Mr. E. Peake, Fenton; ventilation, Messrs. Boyle; heating by Messrs. R. Dawson & Co., Ltd., of Staleybridge, near Manchester. The whole of the work has been carried out from the plans and under the supervision of the Board's architects, Messrs. R. Scrivener & Sons, of Hanley.

SCHOOL-CHAPEL, SHIPHAY COLLATON, DEVONSHIRE.—The school chapel erected at Shiphay Collaton was opened and dedicated recently. It is built of local red stone with yellow freestone

dressings, and has a red tiled roof. The nave, or principal schoolroom, is 34 ft. long by 18 ft. wide. There is also a chancel, 20 ft. by 18 ft., a class-room or vestry on the north side, and a cloak-room on the right of the main entrance. There are porches on either side of the class-room, one connecting with the schoolroom, and the other with the chancel. The south portion of the chancel has been converted into an organ chamber. Dividing the nave from the chancel are stone arches and an oak screen, the work of Mr. Herbert Reed, of Exeter, the panels being carved by Miss Kitson, of St. Marychurch. The floor is of deal block, with a passage of encaustic tiles leading to the sanctuary. The roof is an open boarded one, with framed trusses resting on moulded corbels. The building has been erected by Mr. Mudge, of Exeter, from the designs of Mr. Harbottle, of Exeter.

SANITARY AND ENGINEERING NEWS.

PROMENADE, CASTLE HILL, SCARBOROUGH.—Mr. J. E. Everett, the resident engineer for the construction of the road round the Scarborough Castle Hill, reports that up to September 1 there had been laid a total length of 204 ft. of wall, 18 ft. high, or within 4 ft. of the finished height. One hundred and seventy-two blocks had been made, containing 369 cubic yards of concrete. As soon as the cliff was made safe to work under, more rapid progress than had hitherto been possible might be expected. Every effort was being made to push on the work of sloping the cliff, the worst part of which is now finished. The Scarborough Castle keep and walls are to be included in the proposed lease of the Castle Hill to the Scarborough Corporation, the plateau, or "yard," of which it is intended to lay out in pleasure grounds.

SEWAGE DISPOSAL, BOLSOVER.—Mr. W. H. Wagstaff, engineer, Chesterfield, has been instructed to report as to the best means of sewage disposal at Bolsover, near Chesterfield.

SEWERAGE SCHEME, FRINTON.—At a meeting of the Frinton-on-Sea Parochial Committee recently, tenders were opened for the extension of the sewerage scheme at Frinton, according to the plans of Mr. Beasley, C.E. These were nine in number, and ranged downwards from 6,491*l.* to 5,357*l.*, the lowest being that of Messrs. Parry & Co., of Fulham.

WATER SUPPLY, DESBOROUGH.—The Desborough Urban District Council having applied to the Local Government Board for sanction to borrow 7,085*l.* for the purposes of water supply for the parish, Colonel Albert J. Hepper attended at the Board Schools, Desborough, recently to hold an inquiry into the subject matter of the application. In addition to the Inspector there were present:—Messrs. J. B. Everard (Engineer), C. Gibbons (Medical Officer), T. E. Pearson (Deputy Clerk), W. T. Streathers (Surveyor), and others.

FOREIGN.

FRANCE.—The French Government has just opened a competition amongst native architects only for the erection of the palace intended to receive, in the year 1900, the exhibit of the French War Office and of the Admiralty.——A committee has been formed for the purpose of erecting at Paris and at St. Petersburg two monuments intended to commemorate the alliance of France and Russia.——The Historical Society of Auteuil has instructed M. Charles Dupuy, architect, to prepare designs for the monument which it is proposed to erect on the greensward at Ranelagh in remembrance of the visit to Paris of the Emperor of Russia, whilst M. Gustave Michel has been entrusted with the sculptor's work in this monument.——A new Protestant church in Paris has just been erected on the Boulevard Barbas, the cost of which has amounted to 150,000 francs.——In the National Library has been placed a bust of Duc Jean de Berry, third son of Jean le Bon, executed by M. Desiré Barcet, after a portrait by Holbein belonging to the museum at Bâle.——MM. Mercié and Falguière have been commissioned by the Direction des Beaux-Arts to execute two marble statues, intended for the foyer of the new Opera Comique. That of M. Mercié symbolises comic opera, that of M. Falguière personifies the lyric drama.——The Administration des Beaux-Arts have placed in the entrance hall of the Ecole des Beaux-Arts, in the Rue Bonaparte, two new busts of Pierre Puget and Nicholas Poussin.——A competition is now open for the erection of a Hôtel de Prefecture at Limoges.——The Municipality of St. Quentin have announced a competition, open to French architects, for the erection of a monument to the memory of a benefactor of that town—M. Paringault.——Some farm labourers have recently discovered, in a field situated near Serrières, in the Ardèche, a piece of rectangular mosaic of large size, perfectly preserved and apparently dating back to the earliest years of the Christian era.——Supplementing the particulars already given in the *Builder* relating to the competition promoted by the town of Marseilles for the erection of a monument in honour of the sculptor Pierre Puget, we may add that M. Lombard has gained the first prize, M. Jujalbert the second, M. Hugues the third, M. Belloc the fourth, and M. Ducuing the fifth prize.——A bronze statue of the painter, Jean François Millet, has been erected at Gréville (Manche). It is the work of M. Marcel Jacques, and was exhibited in the recent Salon of the Champ de Mars.——A monument to the memory of President Carnot, the work of the sculptor Leroux, has been erected at Chabanais (Charente).——On September 26 will be unveiled at Aigues-Vives (Gard) a monument to the memory of M. Jamais, formerly Under Secretary of State for the Colonies.——Last week there were unveiled at Haroné two monuments, executed by MM. Vallin, architect, and Huel, sculptor, in honour of the Marshals Bassompierre and Beauvan.——On Sunday last at Morlaix was inaugurated the monument raised to the memory of the Breton sea-dog, Ernic-Duchêne.——M. Eugène Deuilly, painter and artist, has been appointed curator of the museum at Lille, his native town.——We note that the following fine art exhibitions are now open: that at Rocamadour, open till September 20; that at Arcachon, which will close on October 19; and that of the Amis des Arts at Versailles, open till October 3.——M. le Comte de Suzor has been appointed as architect for the erection of the new French hospital at St. Petersburg, of which M. Félix Faure laid the foundation stone during his recent visit to Russia.——The French Government has announced a competition for the construction of two iron bridges at Tonkin, one over the stream at Huê, the other, which will be 1,680 mètres long, over the Red River at Hanoi.——The death is announced of M. Louis Devinant, architect, at Paris, and that of the painter, Emile Bin, at the age of seventy-three years. M. Bin was a Chevalier of the Legion of Honour, and several times received medals at the Salon. Amongst his most important works may be mentioned the decoration of the "Polytechnikum," at Zurich, and that of the theatre at Rheims, and his "Prometheus," which is to be seen in the museum at Marseilles.

GERMANY.—Two new journals will be started in Germany dealing with architectural subjects and the arts and crafts movement. One of these will be published at Munich, and will practically be an imitation of the *Studio*, and its title will be *Dekorative Kunst, Zeitschrift fur angewandte Kunst*. The co-editors will be Messrs. Bruckmann, of Munich, and J. Mier-Graefe, of Paris; the other journal will be known as *Deutsche Kunst und Decoration*.——The first premium in a competition for the design of a new book at Leipsic has been given to Herr Emil Kagberg of Berlin.——The competition for a new Town Hall at Hanover has been decided in favour of Baurath Eggert. The competition was limited to the authors of the six most successful designs which were sent in for a general competition some time back, among whom we would mention Professor Stier and Herr Heinrich Seeling. The cost of the proposed new Town Hall is limited to 225,000*l.*——Of the several monuments which have been recently unveiled in memory of the deceased Emperor William I., the statue which was the subject of an important ceremony on the 31st ult. is, no doubt, the most important. It stands at Coblenz, and is from the designs of Herr Bruno Schmidtz. Another monument was unveiled on the 5th ult. at Magdeburg.——We regret to record the death of Director Nehls, in his 56th year. Herr Nehls had long been associated with the harbour works at Hamburg, and was considered the leading authority on the inland waterways of Germany.

BELGIUM.—The International Contractors' Congress, which was held at Brussels, was divided into two sections. The agenda of section A included a discussion on the rights and responsibilities of the building owner, of the architect or designer, and of the contractor. Further, it dealt with the system of tenders and their acceptance. The agenda of section B included a discussion from the contractor's point of view, and questions of accident insurance, old age pensions, and labour bureaus. There was also a discussion on the formation of Arbitration Boards and another on the "Living Wage."——At Antwerp the works on the new Central Railway station are progressing rapidly, and a considerable expenditure is being incurred in the architectural treatment of the principal buildings, as well as the viaduct and bridges.——The new assembly hall and restaurant in the Zoological Gardens at Antwerp has now been completed, together with a large conservatory, or palm house, which will be one of the principal features of the Gardens.

MISCELLANEOUS.

PROFESSIONAL AND BUSINESS ANNOUNCEMENTS.—Messrs. Morrison, Ingram & Co., of Manchester and Swadlincote, have converted into a private limited company their business and the business of Messrs. Staley Brothers, Midway Pottery, Staffordshire (with whom they are amalgamated), with the object of remodelling and extending Midway Pottery—building increased foundries, sanitary engineering workshops, and sanitary pottery works, upon land recently acquired amounting to upwards of eight acres in extent, in Trafford Park, situated near the Manchester Docks. The title of the company will be Morrison, Ingram & Co., Limited.

RE-DECORATION OF DRURY-LANE THEATRE.—Drury-lane Theatre has been re-decorated externally and internally, according to the scheme and under the superintendence of the Architect to the Company, Mr. Philip E. Pilditch, by Messrs. Campbell Smith & Co. The general interior has been renovated and partly re-decorated, a much lighter treatment being adopted in tones of cream and gold. The ceiling of the auditorium has been lightened in tone, the heavy blue band formerly existing round it having disappeared. The rotunda and staircases have been entirely re-decorated, the heavy treatment of both being replaced by a much lighter one, the general colours being cream, blue, gold, and salmon tints, the interior of the dome being in light blue and white brightened by golden stars. The external façade has been decorated in cream and buff, with a blue band decorated with Grecian Key.

LAND SALE, HAYLING ISLAND.—A land sale is to be held at Hayling Island on the 24th inst., when, in addition to the residence of "Westfield," with stabling and grounds of 4¼ acres in a lot by itself, there will be offered several half-acre plots on the sea common at South Hayling. Messrs. Lumleys are the London auctioneers.

PROPOSED RESTORATION OF THE PARISH CHURCH, DEAN PRIOR, SOUTH DEVON.—It is proposed to raise a fund for completing the restoration, at an estimated cost of 1,000*l.*, of the parish church of St. George, which has a nave, two aisles, a chancel (restored in 1864), and an embattled tower. It contains a monument to Robert Herrick, who was vicar 1629-47, and from 1662 until his death in 1674, set up forty years ago by Mr. W. Perry-Herrick of Beaumanor Park.

SITE FOR NEW OFFICES FOR THE METROPOLITAN ASYLUMS BOARD.—It has been decided by the Local Government Board to issue an order authorising the Metropolitan Asylums Board to purchase a plot of land from the Corporation of the City of London, for the purpose of erecting new offices upon it. The land is situated on the Victoria Embankment, and the cost is not to exceed 53,000*l.*

PRESENTATION TO AN ABERDEEN ARCHITECT.—On the 7th inst. Mr. G. S. Walker, Assistant Architect in the Burgh Surveyor's department, was entertained at supper in the Bon Accord Hotel, Aberdeen, by a number of friends on the occasion of his leaving to take up similar duties in Bury, Lancashire. In the absence of Mr. Wm. Dyack, Mr. J. Gordon, Assistant Burgh Surveyor, presided, and in the course of the evening presented Mr. Walker, in the name of the company, with a set of architectural books.

GLASGOW ARCHÆOLOGICAL SOCIETY.—The annual excursion of this Society took place, on the 7th inst., to Linlithgow. The party arrived at Linlithgow at 9.46. Here they were driven to Torphichen, where the remains of the Preceptory of Knights Hospitallers were visited, and a paper on its history was read by Mr. J. Edwards, F.S.A. Scot., who acted as guide. The old building having been examined, the party returned to Linlithgow, and at once proceeded to the ancient Royal Palace, where a paper relative to its history was read by Mr. J. Dalrymple Duncan, one of the secretaries of the Society. The party having inspected the various parts of the ruin under the guidance of Mr. Duncan, a visit was next paid to the recently-restored Church of St. Michael, just across the way from the Palace. Here an account of the recent restoration of the edifice was given by Mr. John Honeyman, R.S.A., the architect for the work. Luncheon was partaken of in the Star and Garter Hotel, and subsequently the party visited Abercorn and Dalmeny Churches, and also Hopetoun grounds. Dinner was served in the Hawes Inn, Queensferry.

SCHOOL OF ART WOOD-CARVING, SOUTH KENSINGTON.—The School of Art Wood-carving, Central Technical College, Exhibition-road, South Kensington, has been reopened after the usual summer vacation, and we are informed that one or two of the free studentships maintained by means of funds granted to the school by the Institute are vacant. To bring the benefits of the school within the reach of artisans a remission of half fees for the evening class is made to artisan students connected with the wood-carving trade. Forms of application for the free studentships and any further particulars relating to the school may be obtained from the manager.

DUBLIN MASTER BUILDERS' ASSOCIATION.—At the last usual monthly meeting of the Dublin Master Builders' Association, Mr. James Beckett in the chair, it was unanimously resolved that a copy of the following resolution be forwarded to the relatives of the late Mr. Samuel H. Bolton, J.P.:—"The Association of Master Builders desire to place on record their sincere regret at the death of Mr. Samuel H. Bolton, J.P., a much-respected and prominent member of this Association since its inception, and one so honourably connected with the building trade of the city for many years; and further desire to express to the members of his family the deep sympathy they feel with them in their great bereavement caused by his death."

ESSEX ARCHÆOLOGICAL SOCIETY.—A party of members of the Essex Archæological Society, under the guidance of Mr. G. F. Beaumont, the hon. sec., visited Elsenham parish church recently. A brief account of the history of the church, the chancel of which is now being repaired, and of its chief characteristics was given by Mr. G. Pritchard. From here the party drove on to Thaxted, stopping *en route* at Horham Hall. It was here that Queen Elizabeth stayed for some time before she came to

the Throne, and she paid it a second visit after her accession. The members of the Society were welcomed by Mr. Cranmer Byng, who has lately taken up residence at the Hall. Mr. Goddard read a brief sketch of the history of the mansion, and Mr. Byng conducted the party over the principal apartments. From here a move was made to Thaxted, once a thriving little town, carrying on an important trade in cutlery. Its parish church is one of the finest and largest in the county. An interesting sketch of the parish and of the church was given by the Vicar (the Rev. L. S. Westall). The brakes were remounted, and the party were driven to Newport. A visit to the church was the last item on the programme. The President of the Society (Mr. G. Alan Lowndes) accompanied the party.—*East Anglian Daily Times.*

LEEDS MASTER BUILDERS' ASSOCIATION.—The annual meeting of the Leeds Master Builders' Association was held at the Royal Exchange, Leeds, on the 7th inst., Mr. W. Nicholson presiding. The following officers were appointed for the ensuing year:—President, Mr. W. Nicholson; vice-president, Mr. J. Walker; and secretary, Mr. E. Schofield. It was stated that the Association is in a very strong and healthy condition, notwithstanding the recent strike of bricklayers and labourers, the membership having largely increased since last year. Amongst other business, it was decided that the Association should join the Yorkshire Federation of Builders. The trade of the city was reviewed during the meeting, and it was stated that things were quieter than they had been for some time. The members were afterwards entertained to tea at the Queen's Hotel by the President.

RESTORATION OF THE CHURCHYARD CROSS AT FOLKESTONE.—For many years past the vicar of Folkestone (Canon Woodward) has been desirous of restoring the ancient cross in the parish churchyard, the old steps of which have remained in good condition to this day, though the shaft and cross have long since been destroyed. The intended restoration had from time to time to be postponed, but has now been accomplished, and on the 8th inst. the Mayor and Corporation attended in full state at the unveiling of the cross. After the blowing of the old horn by the mace bearer, which according to ancient custom was the signal for the assembling of the inhabitants at the cross, the Mayor performed the unveiling ceremony. It was at this cross that for centuries the mayor of the borough was annually elected. The restored cross is based upon the model of English mediæval crosses of the fifteenth century, and has been erected upon the ancient steps. The shaft is octagonal, with spreading base and richly carved cap, above which are sculptured panels; that to the west representing the Crucifixion, with the Blessed Virgin and St. John; on the opposite panel is represented the Virgin and Child, with attendant angels; whilst on the south, looking seawards, is St. Peter, the patron of fishermen, and to the north, looking towards the town, is St. Eanswith, the patron saint of Folkestone, whose image is impressed upon the Borough seal. The sculptured subjects are beneath carved canopies richly crocketed, and the whole is terminated by an octagonal spirelet surmounted by the cross. The work has been executed in Portland stone by Messrs. Earp & Hobbs, from the designs and under the directions of Mr. S. Slingsby-Stallwood, architect, of Reading.

BUILDING ESTATE, CHISWICK.—The property recently known as Grove End House estate, including a somewhat modern Elizabethan mansion fronting the river, has now been disposed of, and is to be laid out as a building estate, involving the demolition of the house. Messrs. Palgrave & Co., London, are retained as the architects and surveyors for the work, which is to be proceeded with without delay.

A HOUSING PROBLEM AT EPSOM.—The great influx of workmen, chiefly navvies, into Epsom, owing to the erection of the new asylum for the London County Council on the Horton Manor estate, is causing some concern to the local authorities. There being insufficient lodging accommodation in the town, many of the men sought shelter at the workhouse, but, not being destitute, they could not be treated as paupers or casuals. Some tents have been erected in contravention of the by-laws, and a great number of men are reported to be sleeping in the open air, and finding shelter wherever they can. Two meetings have been held by the Epsom Urban Council to consider the question with a view to taking action under the Housing of the Working Classes Act, and the Council have drawn up a scheme, which, if carried out, would involve the borrowing of 7,500*l.* for the erection of fifty cottages (estimated to accommodate 500 men) on their own land. It is calculated that the rents derived from these cottages would yield an annual profit of 100*l.*, after allowing for the repayment of instalments of borrowed money with interest. The carrying out of this scheme depends upon any action which the London County Council may take to meet the difficulty, and the Epsom Council are in correspondence with that body on the subject. They have received an intimation that the Asylums sub-Committee have instructed the Architect to communicate with the contractors. The need of accommodation will be felt still more after Christmas, when, it is stated, 1,600 men will be engaged on the work, chiefly carpenters and bricklayers.—*Times.*

CAPITAL AND LABOUR.

THE LIVERPOOL PLASTERERS' STRIKE.—The following circular has been forwarded from the Liverpool Master Builders' Association to the various Associations affiliated to the National Association of Master Builders of Great Britain:—"The strike of plasterers in Liverpool, which commenced on May 1 last, still continues, and is being prolonged through the men on strike being employed by other contractors throughout the country, and I am instructed to write and ask if you will kindly request the members of your Association to refrain from employing these men during the dispute. The master plasterers are contending against the full strength of the National Association of Operative Plasterers, and it is an open secret that, if they are defeated, the operatives in the other branches of the building trade in Liverpool intend to make similar claims, which include:—(1) Limitation in the number of apprentices; (2) the right of their delegates to visit all works to converse with the men; (3) railway fares in and out to country jobs weekly; (4) that none other than plasterers do concrete flooring, floating for wood blocks and tiles and lathing; (5) the privilege of working overtime, when insisted upon by the men, to be paid time-and-a-quarter; and several other similar unreasonable demands. If the Trades-Union is successful in Liverpool these claims will, no doubt, be made in other towns. The officials have declined arbitration, and intimated that the operatives will not return to work until the whole of the demands are conceded. I am also instructed to ask you to call the attention of the members of your Association to the resolution which was unanimously passed at the recent meeting of the National Master Builders' Association at Bristol, enforcing the necessity of all employers increasing the number of their apprentices in order to remove the present inconvenient scarcity of labour.—Yours faithfully, J. ALFRED S. HASSAL, Secretary. P.S.—In taking on any plasterers during the present dispute my Association would suggest that full enquiries be made as to where they were last employed."

THE STAFFORDSHIRE BUILDING TRADE.—The building trade in the Potteries is extraordinarily good. There are no bricklayers out of work in the district. Joiners report trade as good, with a few out of employment. Bricklayers' labourers are in good request. Painters and plumbers are well employed; but those on outside work have lost considerable time this week through the unsettled weather. At Leek all branches are busy with none out of work. At Crewe there are a few joiners suspended, but, generally speaking, trade is moderate. At Stafford all branches of the trade are busy, particularly stonemasons, who are working overtime.—*Staffordshire Sentinel.*

THE PENRHYN STRIKE.—We are informed by Messrs. Roberts, Adlard, & Co., that resulting upon the settlement of the Penrhyn strike, the first steamer cargo has just been despatched.

LEGAL.

ALLEGED INFRINGEMENT OF ANCIENT LIGHTS IN SLOANE-STREET:

CASE IN THE VACATION COURT.

THE case of Berry *v.* Akroyd came again before Mr. Justice Byrne, sitting as Vacation Judge in the Chancery Division, on the 15th inst. The case first came before his lordship on the 27th ult. on the motion of the plaintiff *ex parte* for an *interim* injunction over the 1st inst. restraining certain building operations of the defendant obstructing, as it was alleged, the plaintiff's ancient lights. It appeared that the plaintiff was the leaseholder and occupier of No. 50, Sloane-street, and the defendant was the occupier of the adjoining house, No. 51, Sloane-street. The gardens at the rear of the houses in question were divided by a party fence-wall. In the year 1888 the persons who were then in occupation of No. 51, Sloane-street, commenced building at the rear of the house a structure called the morning-room, and the plaintiff's predecessors in title applied to restrain them from proceeding with this building by *interim* injunction, but this litigation was compromised by an agreement dated March, 1888, which provided that, in consideration of 150*l.* paid by the then owners of No. 51, Sloane-street, to the then plaintiffs, although the buildings then proposed to be erected were an obstruction of the ancient lights, the then defendants should be at liberty to erect the morning-room in accordance with the plans. The agreement also provided that the morning-room should not be raised to a greater height than mentioned on the plan, viz., 11 ft. higher than the north garden wall. The morning-room was then completed in accordance with the plans, and on June 28 the present defendant served the plaintiff with notice of his intention to erect certain buildings which would interfere with the party fence wall. The defendant then, after negotiations had taken place, abandoned his first plan, and proposed to carry up the north wall of the morning-room 3 ft. higher than was allowed by the agreement, and also to carry the north wall of the room further to the westward, and this, it was said, was a breach of the agreement and would be an interference with the plaintiff's ancient lights. Mr. Justice Byrne, on the 27th ultimo, granted an injunction over the 8th inst. restraining the defendant from building so as to interfere with the plaintiff's lights, but directed that this was not to operate so as to prevent him in any way from building to the same height and distance as the old morning-room which had been pulled down. His Lordship, on the application of counsel and by consent, now directed that the injunction should be continued until the first motion day next sitting.

ALLEGED OBSTRUCTION OF ANCIENT LIGHTS:

CASE IN THE VACATION COURT.

THE case of Goode *v.* Bridgewater was in the list for hearing before Mr. Justice Byrne, sitting as Vacation Judge, in the Chancery Division, on the 15th inst., it being a motion by the plaintiff for an injunction to restrain the defendant from erecting a wall or building so as to obstruct his (the plaintiff's) ancient lights. On the application of counsel for the plaintiff, and by consent, it was arranged that the motion should stand over for one week, the defendant giving an undertaking, in the meantime, in the terms of the notice of motion.

MEETINGS.

SATURDAY, SEPTEMBER 18.

Architectural Association.—Summer visit to the new church at Roehampton. Mr. G. H. Fellowes Prynne, architect. Meet at East Putney Station (District Railway) at 3.30 p.m.

British Institute of Certified Carpenters.—Visit to St. Paul's Cathedral at 2.30 p.m. to inspect the timbers of dome and roofs.

Dundee Institute of Architecture, Science and Art.—Excursion to Edinburgh (M'Ewan Hall, Blackford Observatory, Craigmillar Castle, &c.).

SATURDAY, SEPTEMBER 25.

Architectural Association.—Summer visit to the Grove Hospital, Tooting. Mr. A. H. Tiltman, architect.

Devon and Exeter Architectural Society (Plymouth, Devonport, and Stonehouse Branch.—Visit to Truro Cathedral. Depart from Plymouth (G. W. Railway) 11.5 a.m.

RECENT PATENTS:

ABSTRACTS OF SPECIFICATIONS.

19,995.—FIREPLACES: *L. G. Bratt and Another.*—This invention consists in the particular formation of fire-bricks—viz., the side bricks made with perpendicular circular convex edges at back of same, and the back brick or bricks made with corresponding perpendicular circular concave groove on face at either side, the tongues at bottom fitting into groove in bottom of back brick.

20,259.—FASTENING AND SECURING APPARATUS FOR WINDOWS, &c.: *J. R. Stoney.*—The specification covers various forms and modifications of the device, the simplest form of which consists in a metal fixing or carriage attached to one sash. A thread or threads in this supports a screw at a suitable angle. This screw can be so actuated that its head is forced into a recess in the other sash. In consequence the sashes are held firmly together, as the apparatus "has features of the screw-jack order about it."

20,345.—WINDOWS: *J. Thorncloe.*—The invention relates to improvements for opening and closing windows, both inwards and outwards. The invention may be a sliding sash, with a casement fitted to it, or the casement may be fitted within a fixed frame without sash. The casement may be centred or pivoted at the side, or in the centre, either vertical or horizontal. The four edges of it are fitted with interlocking tongues, which are actuated by cams.

20,612.—ARTIFICIAL STONE: *P. Kléber.*—Consists in a process in which potash is mixed dry with a mixture of gypsum and slaked lime, and worked with a saturated acidified hydrated sulphate of lime, so as to form a plastic substance, whereupon the unfinished stone is treated with a saturated solution of alum acidified with sulphuric acid.

22,581.—JOINTS OF EARTHENWARE DRAIN PIPES: *R. A. Lowe.*—Inventor employs a pipe joint made by two butt-ended earthenware pipes having plain or grooved circumferences, and forming between them an annular outer groove; then filling said groove with clay or an earthenware tape, casting round the ends a ring of plastic mass by means of a divided mould, and finally removing the latter.

23,559.—CHIMNEY COWL: *W. H. Brown and Another.*—In a cowl constructed to revolve by the action of the wind on a vane, inventors fit a conical tube at back of windward side, the largest end towards the current of air, and the smallest extending inside the above centre of cowl and towards open side.

12,824.—DOOR CHECKS: *G. Bortmann and Another.*—Inventors adopt, in combination with a door and its frame, an arm on the former, a lever pivoted thereon, a spring on the frame, and a stop on said arm adapted to retain lever in desired position.

15,053.—ARTIFICIAL STONE OR BUILDING BLOCKS: *P. Ruchert.*—Inventor claims, in artificial stones manufactured from gypsum, cement, fine slag, &c., and moulded, the formation of grooves and channels around their long and short sides.

NEW APPLICATIONS FOR LETTERS PATENT.

AUGUST 30.—19,896, H. Salmon, Joint Lock.—19,900, E. Grinnall, Window Sashes and Casements.—19,907, S. Armstrong, Preventing the Rattling of Window Sashes.—19,930, J. Leigh and J. Ripley, Manufacture of Bricks, Tiles, Blocks, String Courses, Ornamental Facings, &c., Employed in Building, &c.

AUGUST 31.—19,961, P. Jones, Automatic Discharging Cistern Chamber.—19,962, F. Garrett, Unlatching Doors by the Foot.—19,969, J. Leather, Ventilating Appliances.—19,971, M. Adams, Water-closets.—19,972, M. Adams, Flushing Valves.

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered.
Grammar School and Headmaster's House (to cost 1,800*l.*)	Governors, Shepton Mallet Grammar Sch.	.....	Oct. 1
*Technical Schools, Public Library, and Public Hall	Colne Corporation	50*l.* and 25*l.*	Oct. 20
*Plans for Church, Southend-on-Sea	St. Alban's Church Committee	See advertisement	Nov 20
Town Hall and Law Courts	Cardiff Corp.	500*l.*; 300*l.*; 200*l.*	Dec. 4
*Promenade Pier and Pavilion	Boxhill Pier, Park, & Land Co.	See advertisement	No date

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Forms of Tender, &c. Supplied by	Tenders to be delivered.
Paving Setts and Kerbs	Chorley Corporation	Boro. Surv. Town Hall, Chorley	Sept. 18
Flags	do.	do.	do.
Broken Granite and Chippings	do.	do.	do.
Limestone Chippings	do.	do.	do.
Glazed Earthenware Pipes	do.	do.	do.
Culverts and Sewers, Stoney-lane	Birmingham Corp.	J. Price, City Surv. Council House, Birmingham	do.
Schools, Pentford	Stanton Drew School Board	G. Batten, Clerk to Board, Pensford, Bristol	do.
Schools, Ashley Down	Horfield School Bd.	W. S. Paul & James, Archts. 15, Clare-street, Bristol	Sept. 20
Plumbers' Work at Schools	do.	do	do.
Making-up Streets, Little Prince Rock	Plymouth Corp.	J. Paton, Boro. Engr. Municipal Offices, Plymouth	do.
Residence, Port Isaac	.....	Wise & Wise, Archts. Launceston	do.
150 tons Broken Whinstone	Amble U.D.C.	W. Gibson, Surv. 31, Queen-street, Amble	do.
Laundry at Workhouse, Welton	Guardians	J. Harding & Son, Archts. 51, Canal, Salisbury	do.
Footpaths, Rochford	Rochford R.D.C.	F. Gregson, Clerk, Southend-on-Sea	do.
Business Premises, Ivegate	.....	Jas. Lodingham, Archt. District Bank-chambers, Bradford	do.
Jubilee Memorial	.....	W. Atkins, Green-street, Kent	do.
Private Street Works	Hanley Corp.	J. Lobley, Boro Engr. Hanley	do.
1,000 ft. Brick Kerb, &c. Rowhedge	Lexden and Winstree R.D.C.	J. Ronals, Surv. Copford, Colchester	Sept. 21
Road Works, Pontcanna Estate	W. S. Powell	C. Telford Evans, Archt. 8, Queen-street, Cardiff	do.
Boundary Wall	Guardians of Gateshead Union	Clerk to Guardians, Prince Consort-road, Gateshead	do.
Alterations, &c. Dwelling-house and Shops	Mr. G. Drake	A. Hartley, Archt. Carlton-chambers, Castleford	do.
Laundry, Stables, &c. Tiverton	Bath Hygienic Laundry Co. Ltd.	Engr. to Co. Northgate-chambers, Bath	do
Alterations, &c. Albert Park Hotel	Messrs. James Eadie, Ltd.	J. Mitchell Bottomley, Archt. Middlesbrough	do.
*Tarpaving and Drainage Works	Tottenham U.D.C.	P. E. Murphy, Engr. Council Offices	&c.
*Kerbing and Paving Road	do.	do.	do.
*Painting, &c. Water Tower and Tank	do.	do.	do.
Stone Supply	Cardiff Corporation	W. Harper, Boro. Engr. Town Hall, Cardiff	do.
Forming, &c. Carriageways	do.	do.	Sept. 22
Paving, &c. Footways	do.	do.	do.
*Heating Apparatus, also Kitchener	Isle of Wight Union	F. Stratton, 31, Pyle-st. Newport, Isle of Wight	do.
Dwelling-house, Cramlington	Mr. Carr	Boolds & Hardy, Archt. Market-place, Morpeth	do.
Forty-five Cottages, Pontycymmer	Fforaldan Colliery Co. Ltd.	Colliery Offices	do.
Residence, Park Drive, Harrogate	.....	Smith & Tweedale, Archts. 12, South Parade, Leeds	do.
*Heating and Ventilating of Municipal Buildings	Plymouth Corporation	J. Paton, Borough Engr.	do.
Cast-iron Mains, &c.	Stockport Corp.	Mr Mennier, Engr. Millgate Gasworks, Stockport	Sept. 21
Private Improvement Works	Halifax Corp.	E. R. S. Escott, Boro Engr. Town Hall, Halifax	do.
Cart Shed	Castleford U.D.C.	W. Green, Surv. Council Offices, Castleford	do.
Heating Apparatus, Public Washhouse	Glasgow Corp.	Office of Public Works 64, Cochrane-st. Glasgow	do.
*Pulling-down Six Houses, &c.	St. George-in-the-East Vestry	G. A. Wilson, Vestry Hall, Cable-street, E.	do.
Vil'a, near Liskeard	J. H. Blarney	J. Sansom, Archt. Liskeard	Sept. 24
Headstones and Kerbs	Leeds Corporation	City Engr. Leeds	do.
Boundary Walls, &c.	Featherstone Bur. Bd.	W. H. Fearnley, Archt. Station lane, Featherstone	do.
Reading Room, Yearley	.....	E. A. Whipham. Archt. 59, High-st Stockton-on-Tees	do.
School, Blackburn	St Barnabas Building Committee	F. J Parkinson, Archt. 9, Richmond-ter. Blackburn	Sept. 25
Work at Police Court	Maidstone Corp.	Boro. Surv. Maidstone	do.
Two Houses, Great Yarmouth	Mr. J. Ellis	C. G. Baker, Archt Town Hall Chmbrs, Gt. Yarm'th	do.
School, Heathfield, Bovey	.....	J. W. Rowell & Son, Archts. Newton Abbott	do.
Decorating Board Room	Leeds Union	T. Butler Wilson, Archt. 12, East-parade, Leeds	do.
Electric Lighting Board Room	do.	do.	do.
Sixteen Houses, Hamsterley	.....	Hamsterley Colliery Offices, Rochester R.S.O.	do.
Laundry Machinery, Mitcham School	Holborn Union	C. E. Vaughan, Archt. 25 Lowther-arcade, Strand	do.
Sewer, Monkstown-road	Blackrock Township Commissioners	R. Finlay Heron, Town Hall, Blackrock, co. Dublin	Sept. 26
Temporary Buildings for 100 Patients	Commrs. Portrane Lunatic Asylum	G. C. Ash'in, Archt. 7, Dawson-street, Dublin	Sept. 27
Preparing Site and Foundations	do.	do.	do.
Plumbing Work and Heating	do.	do.	do.

CONTRACTS—*Continued.*

Nature of Work or Materials.	By whom Required.	Forms of Tender, &c. Supplied by	Tenders to be delivered.
Sewering, &c. Corporation-street	Morley Corp.	M. H. Sykes, Boro Surv. Town Hall, Morley	Sept. 27
Dwelling-house, &c. Winlaton	Mr. R. Hurst	W. Allen, Archt. 16, Ryton Village East, Ryton-on-Tyne	do.
Dwelling-house, &c Winlaton	Mr. R. Mawston	do.	do.
Binding Chimney Stack, Kelvinhaugh	Glasgow Corp.	D. M'Coll, 64, Cochrane-street, Glasgow	do.
Sewering, &c. Church-road	St. Anne's-on-the-Sea U.D.C.	Surv. Council Offices, Park-rd. St. Anne's-on-the-Sea	do.
Additions, &c. to Baths	Liverpool Corp.	W. R. Court, 15, St. George-street, Liverpool.	do.
Boiler House Enlargement, Pembury	Tunbridge Wells Corp.	T. R. W. Mellor, Engr. Town Hall, Tunbridge Wells	do.
Cabinetmakers' Workshop	.....	W. Davey, 27, Brunswick-road, Pudsey	do.
Public Hall	Parish Council, Lumphanan	Clerk to Parish Council	Sept. 23
*Excavating and Foundations	Leicester Boro Asylum	G. T. Hine, 35, Parliament-street, S.W.	do.
*Asylum Foundations, &c.	West Ham Council	Lewis Angell, Boro' Engr. Town Hall	do.
*Guernsey or Quevast Broken Granite	U.D.C. of Esher and the Dittons	Council Offices, Portsm'th-road, Thames Ditton	do.
*Making-up and Paving Roads, and Providing and Laying Pipe Sewer	Fulham Vestry	C. Botterill, Town Hall, Walham Green, S.W.	Sept. 29
*Building Walls and Laying-out Exercise Ground	Hackney Union	F. R. Cole, Clerk's Office, Homerton, N.E.	do.
*Building a Shelter	Met. Asylums Board	T. W. Aldwinckle, Archt. 1, Victoria-street, S.W.	do.
Memorial Fountain, Burnley	.....	Boro Surv. Town Hall, Burnley	do.
*Police Station, Harpenden	Hertford C.C.	U. A. Smith, 41, Parliament-street, S.W.	do.
Limestone	Gelligaer and Rhigos R.D.C	W. Bevan, Highway Surv. Deri, vid Cardiff	do.
Alterations, &c. Sewage Pumping Station	Seaford U.D.C.	B. A. Miller, Surv. 3, Clinton-place, Seaford	Sept. 30
Water Purifier	Tetsworth Par. Coun.	H. J. Gibbons, Archt. & Surv. Chesham, Bucks.	do.
Police Station, &c. Redditch	.....	H. Rowe, County Surv. Worcester	Oct. 1
Boiler House, &c. Brentwood Asylum	Visiting Com. Essex Lunatic Asylum	Medical Supt. at the Asylum	Oct. 2
Drapery Warehouse, Halifax	.....	Jackson & Fox, Archts. 22, George-st. Halifax	Oct. 4
Steel Girder Bridges, Clones	G.N.R. Co. Ireland	Engr.-in-Chief, Amiens-street, Dublin	do
Stationmaster's Office, Banbridge	do.	do.	do.
*Stoneware Pipe Sewers, Iron Pipes, Construction Pumping Station Buildings	Southend-on-Sea Corp.	J. Mansergh, 5, Victoria-street, S.W.	do.
*Band Stand, &c. Bethnal Green	London C.C.	Archt.'s Dept. 17, Pall Mall East, S.W.	Oct. 5
*Sewerage Works	Westminster Vestry	G. R. W. Wheeler, Town Hall, Caxton-street, S.W.	do.
*Wrot Iron Hurdles	London C.C.	Parks Dept. Spring Gardens, S.W.	do.
Farmhouse, &c. Lafter Hole	.....	R. C. Morgan, Archt. Hollybank, Yelverton	Oct. 6
Water Tower, &c. Hipperholme	.....	Medley Hall, Archt. 29, Northgate, Halifax	do.
*Laundry Machinery (Boilers, Engine), &c.	Holborn Union	C. E. Vaughan, 25, Lowther-arcade, W.C.	do.
Central Police Station, &c.	Belfast Corporation	City Surv. Belfast	Oct. 7
Chronic Block, &c. Mullingar District Lunatic Asylum	Commrs. for control of Lunatic Asylums	S. Williams, Sec. Custom House, Dublin	Oct. 9
Gasholder, Ramsgate	Gas & Water Committee	W. A. M'Intosh Valon, Engr. Ramsgate	Oct. 11
*Building for Stores and Offices, North Woolwich	London C.C.	Engr.'s Dept. Spring Gardens, S.W.	Oct. 12
*Gate Porter's Lodge	Met. Asylums Board	Offices, Norfolk House, Norfolk-street, W.C.	Oct. 13
Power House, Buildings, &c. Stockton	Imperial Tramways Co. Ltd.	J. Clifton Robinson, Engr. Bridge-road, Stockton	No date
Extension of Mill Premises	Roberts, Mart, & Co.	Ambler & Bowman, Archt. 9, Park-place, Leeds	do.
Mortuary	Lower Bebington U.D.C	J. Young, surv. 78, Stanleyterrace, New Ferry, near Birkenhead	do.
Rebuilding Weir	.....	Isherwood & Weir, Samlesbury Paper Mill, near Preston	do.
Flags	Manchester Corpn. (Highway Committee)	Chief Clerk, Highways Office, Town Hall, Manchester	do.
Public Hall, Holbeach	Holbeach Public Hall Co.	J. Sawyer, Archt. 63, Chancery-lane, London	do.
Shop Alterations	Leeds & Leicester Boot Co. Ltd.	E. R. Ridgway, Archt. Long Eaton	do.
Wesleyan Church and Schools, Westbourne, Bournemouth	.....	R. Curwen, Archt. 112, Hamilton House, Bishopsgate-st. Without, London	do.
Additions, &c. to Workhouse, Bletchingley	.....	F. Biff, Archt. Caterham, Surrey	do.
Square Chimney, 75 ft. high	.....	J. Penwick & Sons, Ltd. Hexham-on-Tyne	do.
Additions, &c. to Brynawel	.....	W. Griffiths, Archt. Llanelly	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.
*Surveyor	Aldershot U.D.C.	200*l.* per annum	Sept. 21
*Surveyor's Assistant	Bristol Corp.	180*l.* rising to 250*l.* per annum	Sept. 25
*Assistant Engineer and Surveyor	do.	250*l.* rising to 300*l.* per annum	do.

Those marked with an asterisk (*) are advertised in this Number. *Competitions, p.* iv. *Contracts, pp.* iv. vi. *&* viii. *Public Appointments, pp.* xvii. *&* xix.

SEPTEMBER 1.—20,111, W. Cockroft, Door Locks or Latches.—20,141, E. Beyer, Noiseless Door Buffer.

SEPTEMBER 2.—20,151, A. Waterhouse, Attaching Door Knobs to their Spindles.—20,162, G. Burrows, Rim Locks and Latches.—20,178, B. Pitt, Window Sash and Casement Fastener.—20,177, B. Pitt, Bolt for Doors, Casements, &c.—20,195, J. Martlaw, Chimney, Ventilating, Cowls, &c.—20,205, E. Nowell and C. Ring, Combination Tool for Joiners, Carpenters, &c.—20,219, W. Reynolds, Charging Flush Cisterns or Closet Pans with Disinfecting Fluid.

SEPTEMBER 3.—20,244, D. Morrison, Kitchen Sinks.—20,267, C. Voigt, Roofing Tiles.—20,274, W. Oman, Door Fastener.—20,285, T. Smith, Fasteners for Window Casements, &c.—20,314, R. Leonhardt, Door Lock.

SEPTEMBER 4.—20,328, R. Dale, Bricks.—20,332, A. Marginson, Drain Pipes.—20,348, A. Veon, Combined Door Fastener and Alarm.

PROVISIONAL SPECIFICATIONS ACCEPTED.

14,299, A. Elbers, Process of Treating Blast Furnace Slag for use in Cement Mortar, &c.—17,334, J. Déri, Wood Paving.—17,553, G. Marsden and J. Newton, Dies for use in the Manufacture of Slabs or Tiles.—17,821, W. Benson, Casements and Window Frames.—18,010, S. Hill and R. Hodges, Door Closing Appliances. — 18,151, C. Tymm, Machines for Making Bricks.—18,153, J. Sullivan, Combination Door Holders.—19,028, J. Newell, Glass Surfaced Composition Slabs, Tiles, &c.—19,030, A. Eyles, White Lead.—19,079, R. Adams, Sliding Windows, Sashes, and in the Method of and Means of Converting the same also into Revolving Sashes.—19,086, H. Alexander, Oiling Apparatus for Brick-making Machines, &c. — 19,106, G. Maxted and C. McDermott, Mould-sanding Machines.—19,157, A. Cryer and E. Newby, Window Fasteners.—19,343, W. Johnson and F. Woodhead, Machines for Making Bricks.—19,542, J. Mason and W. Hardy, Tiles for Roofing, &c.—19,639, N. Sherson and others, Sheet Roofing.

COMPLETE SPECIFICATIONS ACCEPTED.

Open to opposition for two months.

20,712, J. Austin, Water Taps.—24,503, G. Herbert, Sash Fittings for Sliding Swing Sashes.—25,874, W. Borrer, Hand Tool or Saw for Wood Working.—50, D. Buchanan, Drain Traps.—17,004, A. Downing, Ceramic Decorative Plates, Tiles, &c.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

August 30.—By W. DEW & SON (at Colwyn Bay).

Colwyn Bay, Denbigh.—"The Min-y-Don Estate," comprising 395 a. 3 r. 36 p., f. (in lots) £18,802

September 2.—By MORRIS, SONS, & PEARD (at Wellington).

Wellington, Somerset.—Two freehold enclosures of land, 10 a. 1 r. 1 p. 365

By JOHN PALLISTER (at Bishop Auckland).

Toft Hill, Durham.—"New Carterthorne Colliery," also "Toft Hill Hall" and two farms, area 91 a. 3 r. 18 p., part c and part u.t. 4 yrs., r. 100*l.* (including mortgages) 8,475

September 6.—By FRANKLIN HOMAN.

Shorne, Kent.—"Hill House" and 1 a. 3 r. 29 p., f., e.r. 100*l.* 1,575

September 7.—By E. H. HENRY.

Clapham.—6, Alderbrook-rd., u.t. 79½ yrs., g.r. 8*l.* 650
17, Ellerslie-rd., u.t. 38½ yrs., g.r. 2*l.* 10s., r. 50*l.* 530

By WESTON & SONS.

Kennington.—89 and 115, Warham-st., f., r. 46*l.* 16s. 550
142, Farmer's-rd., f., r. 18*l.* 4s. 215
Peckham.—13 and 15, Azenby-sq., u.t. 70 yrs. g.r. 8*l.* 500
Clapham.—181, Maysoule-rd., u.t. 81 yrs., g.r. 5*l.* 210

By ORGILL, MARKS, & ORGILL (at Masons' Hall Tavern).

Thornton Heath.—High-st., "The Wilton Arms" Tavern, u.t. 47 yrs., r. 50*l.*, with goodwill.... 10,370

By W. J. GARDNER (at Masons' Hall Tavern).

King's Cross.—York-rd., "The Ambassador" p.h., with shop adjoining, u.t. 46 yrs., g.r. 30*l.*, r. 140*l.* 5,600
65 and 67, Wharfedale-rd., u.t. 46 yrs., g.r. 22*l.*, r. 70*l.* 1,650

By SEXTON & GRIMWADE (at Ipswich).

Nedging, Suffolk.—"The Nedging Hall Estate," 290 a. 2 r. 14 p., f. 2,550
Monks Eleigh, Suffolk.—"Manna Wood Farm," 112 a. 1 r. 34 p., f. 560
Chelsworth, Suffolk.—A freehold cottage residence, r. 14*l.* 210

September 8.—By BARBER & BELLAMY.

Clapham.—5, Franconia-rd., u.t. 83 yrs., g.r. 7*l.*, e.r. 42*l.* 400

By E. GIBBS & Co.

Brixton.—61 and 63, Arlingford-rd., u.t. 77 yrs., g.r. 17*l.*, r. 69*l.* 690
55 and 57, Chaucer-rd., f., r. 122*l.* 4s. 1,010

September 9.—By CHESSHIRE, GIBSON, and FOWLER (at Birmingham).

Knowle, Warwick.—"The Grove Farm," 75 a. 0 r. 20 p., f. 3,400
Enclosures of land, 19 a. 3 r. 0 p., f. 950

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent r f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard, &c.

PRICES CURRENT OF MATERIALS.

TIMBER.		
Greenheart, B.G. ton	8 o/o	o/o/o
Teak, E.I....load	20/10/o	25/10/o
Sequoia, U.S. ft.cu.	1/8	2/10
Ash, Canada load	3/5/o	4/10/o
Birch, do.	4/5/o	6 o/o
Elm, do.	4/o/o	5/5/o
Fir, Dantzic, &c...	2/5/o	4/5/o
Oak, do.	2/10/o	3/10/o
Canada	5/10/o	6/10/o
Pine, Canada red	o/o/o	o/o/o
Do. Yellow	3/o/o	4 o/o
Lath, Dantsic, fath	4/10/o	5/10/o
St. Petersburg..	3/o/o	3/10/o
Wainscot, Riga, &c., log	2/10/o	3 15/o
Odessa, crown....	2/10/o	3/15/o
Deals, Finland and 1st std 10s	8/10/o	8/10/o
Do. 4th & 3rd...	8/o/o	8/10/o
Do. Riga	6/10/o	9/10/o
St. Petersburg, 1st yellow....	10/o/o	12/10/o
Do. 2nd yellow	o/o/o	10/10/o
Do. white	8/10/o	10/10/o
Swedish	9/o/o	15/10/o
White Sea.....	9/10/o	16/o/o
Canada, Pine 1st	20/10/o	26/10/o
Do. do. 2nd	15/10/o	17/10/o
Do. do. 3rd, &c.	7/10/o	11/o/o
Do. Spruce, 1st.	10/10/o	12/o/o
Do. do. 3rd and 2nd	8/o/o	9/o/o
New Brunswick	7/10/o	8/o/o
Battens, all kinds	5 o/o	00/o/o
Flooring boards, sq., 1 in. prep. 1st	o/8/6	o/15.6
Do. 2nd	o/7/o	o/10.o
Other qualities...	o/5/o	o/6/o
Cedar, Cuba, ft.	/4	o/o/o
Honduras, &c.	/3½	/4½
Mahogany, Cuba	/5	/8½
St. Domingo, cargo av.	/4½	/5½
Mexican, do. do.	/3½	/4½
Tobasco, do. do.	/4	/6½
Honduras, do.	/4½	/6
Box, Turkey, ton	4/o/o	25/o/o
Rose, Rio.....	7/o/o	14/o/o
Bahia	6/o/o	10/o/o
Satin, St. Doming.	o/o 5	o'o/o

TIMBER *(continued).*		
Satin, Porto Rico	o/o/6	o/1.6
Walnut, Italian ...	o/o 3	o/o/7
METALS.		
Iron—Pig, in Scotland .....ton	o/4/3	2'4 4)
Bar, Welsh, in London.....	5/15/o	5/17/6
Do. do. at works in Wales	5/10/o	5/12/6
Do. Staffordshire, in London.....	6/5/o	7/10/o
COPPER — British cake and ingot	52/15/o	53/5/o
Best selected ..	53 5/-	53 15 o
Sheets, strong..	58/o/o	59 o/o
Chili bars	49/10/o	-o/o/o
YELLOW MTL lb.	4½d.	5d.
LEAD — Pig Spanish .....ton	13 10/o	13/15/o
English com. brands	13/12 6	13 17 6
Sheet, English 6 lbs. per sq. ft. and upwards ..	15 o/o	o/o/o
Pipe.....	15/10/o	o/o/o
ZINC — English sheet.....ton..	20/5/o	o/o/o
Vieille Montagne	21/5/o	o/o/o
Spelter	17/7/6	17/10/o
TIN—Straits	60/16/3	o/o/o
Australian.....	62/10/o	63 o/o
English Ingots.	65/o/o	66 o/o
Banca.....	61/o/o	o/o/o
Billiton	59/15/o	60/o/o
OILS.		
Linseed .....ton	13/12 6	o'o/o
Cocoanut, Cochin	27/15/o	o/o/o
Do. Ceylon	24/o/o	o/o/o
Palm, Lagos.....	24/10/o	o/o/o
Rapeseed, English pale	27/10/o	27/15/o
Do. Brown	27/o/o	27/10/o
Cottonseed ref. ..	25/17/6	26/10/o
Oleine	28/10/o	29/10/o
Lubricating U.S.	o/o/3	o/7/6
Do. black	o/o/9	o/8/6
TAR — Stockholm barrel	21/o	o/o/o
Archangel.....	o 12 6	o/o/o
Turpentine	21/15 o	o/o/o

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursdays.* N.B.—We cannot publish Tenders unless authenticated by the name and address of the sender: and we cannot publish announcements of Tenders accepted unless the amount of the Tender is given, nor any list in which the lowest Tender is under £100, unless in some exceptional cases and for special reasons.]

ANDENSHAW.—For rebuilding Liberal Club, Mr. J. H. Burton, architect, 2, Guide-lane, Hooley Hill:—

Wellarman Bros.	£1,162 14	J. Rudyard	£1,013 0
J. Whitehead	1,074 0	Exrs. of T. Storer	1,005 0
E. Kirkley	1, 71 7	Z. Pike, Hooley Hill*	990 0
C. Evans	1,041 6		

* Accepted.

BAKEWELL.—Accepted for the construction of precipitation tanks and about 1½ miles of stoneware pipe sewers, Stony Middleton, for the Rural District Council. Messrs. Steeling & Swann, engineers, Town Hall, Chapel-en-le-Frith, via Stockport:—

T. A. Matthews, Buxton £1,257

BARNET (Herts.).—For additions to the Victoria Cottage Hospital, for the Committee. Mr. C. P. Ayres, architect, 14A, High-street, Watford:—

W. James	£1,584 0	M. Pearson	£1,593 17
J. W. Pavey	1,859 0	J. Daniels	1,518 0
C. H. Hunt	1,603 0	W. Wade, St. Neots*	1,368 0
H. M. Dove	1,690 0	G. & J. Waterman	1,297 0
Turner, Ltd.	1,597 0	W. B. Neal	1,150 0

* Accepted.

BELFAST.—For erecting two houses, Wellington Park, for the Rev. M. Beattie. Messrs. Forman & Aston, architects, Queen's-buildings, Royal-avenue, Belfast:—

H. Smyth ..	£900	Young & Dickson, Pakenham-street (accepted)	£830
Robinson	850		

[Three lowest tenders.]

BEXHILL.—Accepted for shops and dwelling houses in St. Leonard's-road, Bexhill, for Mr. H. W. Gillam. Mr. W. Cooper, architect, 21, Havelock-road, Hastings. Quantities by the architect:—

F. Cruttenden £1,100

BOURTON-ON-THE-WATER.—For the erection of hall and reading-room. Messrs. Prothero & Philcote, architects, Cheltenham:—

Bartlett Bros.	£1,597 18	Hartwell & Sons	£1,530 0
W. J. Bloxham	1,597 0	A. Clifford & Son	1,497 10
W. Barnes	1,582 0		

BRADFORD.—Accepted for enlarging the Masonic Hall, Rawson-square, for the Masonic Hall Company, Limited. Mr. T. C. Hope, architect, Old Bank-chambers, Bradford:—

Masonry.—W. K. Booth, Clayton, Bradford.....
Joinery.—H. Thirkill, Bradford .....
Plumbing.—R. S. Abbott & Son, Bradford .....
Plastering and Slating.—Hill & Nelson, Bradford..
} £311

[Total amount of the highest tenders received, £462.]

BRIDLINGTON QUAY.—For additions to Nos. 2 and 3, Springterrace. Mr. S. Dyes, architect, Bridlington Quay:—

C. Limon	£358 0 0	W. Barnes, Travis-st., Bridlington Quay*	£288 0 0
A. Gardam	235 6 8		
T. Wood	316 0 0		

* Accepted.

CABRA.—Accepted for building play-halls at auxiliary workhouse, for Guardians of North Dublin Union:—

Henry Monks, Great Brunswick-street, Dublin £659

[Two other Tenders received.]

CHATHAM.—For rebuilding the "Alexandra Hotel," Chatham, for Messrs. Budden & Briggs, Limited. Mr. Boucher, architect, High-street, Rochester. Quantities by Mr. H. R. Messenge, Percy Villa, Seabrook, Kent:—

J. & M. Patrick	£3,267	Seagar	£2,742
Wyles	3,100	West Bros.	2,723
Phillips	2,820	Skinner, Railway-street, Chatham*	2,661
Pilley	2,754		
Snow	2,745		

* Accepted.

DERBY.—For the erection of a Parish hall and Council room at Farnley, near Tamworth; presented by Mr. James Eadie, of Barrow Hall, Denby. Messrs. Wright & Tomlinson, architects, Derby. Quantities by architects:—

Wm. Wistance	£2,689	Ford & Co.	£2,175
Clarson & Son	2,330	R. Kershaw, Burton*	2,050

* Accepted.

DOVER.—For additions to hospital, for the Hospital Committee. Messrs. Fry & Gardener, architects, Cannon-street, Dover. Quantities by architects:—

G. F. Keeler	£831 17	J. Parsons	£611 10
G. Lewis & Sons	625 0	Austen & Lewis*	597 0
W. Bromley	619 0		

* Accepted.

[All of Dover.]

EPSOM.—For making-up the Longfellow and Lincoln roads, Cheam, for the Rural District Council. Mr. H. D. Searles Wood, surveyor, 157, Wool Exchange, Coleman-street, E.C.:—

S. Kavanagh	£2,168 10 6	W. H. Wheeler	£1,503 17 11
H. Benham & Co.	1,978 0 0	W. Jenner	1,432 14 10
Lawrance & Thacker	1,676 2 8		

EXETER.—For Jubilee drinking fountain. Mr. J. A. Andrews, architect, Exeter:—

J. & E. Goad	£1 851 0	Harry Hems & Sons	£1,102 0
W. Gibson	1,320 0	C. J. Stocker	930 0
W. B. Berry	1,100 0	J. Easton & Sons	746 5
Mitchell & Sons	1,025 0		

HASLINGDEN.—For the construction of artificial filter-beds, &c., for the Outfall Sewerage Board. Mr. L. Hinnell, C.E., 41, Corporation-street, Manchester:—

Enoch Tempest, Marple.

[As per schedule of prices.]

HEBBURN.—For excavating, levelling, sewering, macadamising, paving, channelling, cementing, &c., in St. Rollox-street, back St. Rollox-street, Glen-street, back Glen-street, Tennant-street, back Tennant-street, back Newton-villas, Elm-street, back Woodstreet, street foot of Arthur, Frederick, and Harvey streets, and back Hilda-terrace, for the Urban District Council. Mr. J. B. Renton, Surveyor:—

W. D. Young	£1,254 9 1	T. Callaghan, Jarrow*	£1,224 18 7

* Accepted.

[Surveyor's estimate, £1,194.]

HEBBURN.—For erecting shedding, &c., Argyle-street, for the Urban District Council. Mr. J. B. Renton, Surveyor:—

J. Musgrove	£495 0	Cowper & Henderson, Jarrow (accepted)	£489 15

[Surveyor's estimate, £509. 17s. 3d.]

HOPEWELL HILL (Gloucestershire).—For erecting stables and store-rooms, for the West Gloucester Waterworks Company. Mr. J. Mackay, architect, Kingswood, Gloucestershire. Quantities by architect:—

J. Willshire & Sons	£397 0 0	S. Williams	£368 0 0
J. Wilkins	397 0 0	F. Martin	364 17 6
J. Wilkins	378 0 0	Stock & Haynes	350 4 6
S. Lovell	380 4 0	R. Rogers, Kingswood*	336 7 4
J. Hatherley	375 0 0		
Hughes & Weeks	372 0 0		

* Accepted.

KNARESBOROUGH.—Accepted for erecting a detached house, for Mr. W. E. Goodyear. Mr. A. A. Gibson, architect, 8, Cambridge-crescent, Harrogate:—

Masonry.—S. Nettleton, Bilton, Harrogate ....
Carpentry and Joinery.—Clapham & Taylor, Harrogate.....
Plumbing and Glazing.—C. Benson, Knaresborough .....
Plastering.—Coleman Bros., Knaresborough....
Tiling.—W. Cassells, Knaresborough .....
Painting.—W. Noddings, Harrogate.....
} £1,032 10

LLANBADARN.—For the erection of a school-room adjoining Independent Chapel, Llanbadarn. Mr. J. Hughes Williams, architect, Quebec-road, Llanbadarn Ferry:—

D. Williams, Aberystwith*	£360	T. W. Bowen	£350

* Accepted.

LLANDRINDOD WELLS.—For the erection of an hotel, for the Gwalia Hotel Company. Messrs. Swash & Bain, architects, Midland Bank-chambers, Newport:—

W. Bowers & Co.	£8,840	E. G. Groom	£8,320
D. Lewis	8,642	D. Jenkins, Beach-street, Swansea*	8,190
C. H. Reed	8,630		
Morgan, A. S. & Co.	8,630		

* Accepted.

LONDON.—For pulling down and rebuilding "The Star and Garter Hotel," Powis-street, Woolwich, and stabling in rear, for Mr. W. Chambess. Mr. John O. Cook, architect:—

Balaam Bros.	£10,200	Richardson	£8,309
Smith & Sons	9,993	Holloway	8,757
Lilley & Lilley	9,237	Sanford	8,750
Kirk & Randall	9,157	Proctor	8,678
Thomas & Edge	9,147		

LONDON.—For pulling down and rebuilding premises, 76, Great Titchfield-street, W., for Mr. Joshua Thompson. Mr. Albert E. Pridmore, architect, 2, Broad-street-buildings. Quantities by Mr. R. J. Stamp:—

Watson Bros.	£1,682	W. J. Davenport	£1,349
A. A. Webber	1,617	W. Wiltshire	1 273
S. R. Lambie	1,557	Herbert King*	1,248
Beer & Gash	1,443		

* Accepted.

LONDON.—For alterations to "Coronet" public-house, Soho-street, W., for Mrs. Lindley. Mr. John Dell, architect, Bradley-gardens-avenue, Ealing:—

Antill	£2,577	Perkins	£2,437
Beer & Gash	2,573	Richards (accepted)	2,365
Mitchell	2,489	Drew & Cadman	2,300

LONDON.—For cleaning and painting the Bishopsgate Institute, Bishopsgate-street, E.C., for the Trustees. Messrs. Dale & Gadsdon, architects:—

Allard & Co.	£464 10	Heeps	£399 0
Kemp	398 0	Pearwain (accepted)	296 0

LONDON.—For the erection of six houses in the Ellesborough-road, Wood Green, for Mr. C. W. Tame, "Lordship Tavern," Wood Green. Mr. E. Howard, architect:—

A. Brown £2 450

LONDON.—For the erection of Higher Grade Schools, Wood Green, N., for the Tottenham School Board. Mr. A. M. Butler, architect, 16, Finsbury-circus, E.C. Quantities by Messrs. D. Campbell & Sons, 4, Finsbury-circus, E.C.:—

J. Chessum & Sons	£24,250	W. Scrivener & Co.	£19,500
C. Gray Hill	21,627	Charles Wall	19,230
A. Fairhead & Son	20,880	H. Knight & Son, Chestnut-road, Tottenham*	17,925
F. J. Coxhead	19 634		

* Accepted, subject to approval of Education Department.

LONDON.—For alterations, additions, and fittings at the "Carpenter's Arms" public-house, Carpenter's-road, Stratford, E., for Messrs. Holt & Co. Mr. Fred. A. Ashton, architect, 177, Romford-road, Stratford, E.:—

J. & H. Cocks ..... £2,940 | A. E. Symes (accepted) £2,805

LONDON.—For new story, structural alterations, and bar fitting, at the "Lord Palmerston," Kilburn, for Mr. J. Sheild:—

Drew & Cadman ..... £5,289 | J. Bennett, Edgware-road* £5,136

* Accepted.

LONDON.—For new premises, Regent-street (late Hanover Chapel site), for Mr. T. H. Brooke Hitching. Mr. G. D. Martin, architect, 3, Pall Mall East, S.W. Quantities by Mr. W. Westmoreland:—

Contract No. 1.—Excavation and Foundations.

H. J. Williams	£2,547	A. Kellett	£2 126
H. & E. Lee	2,450	J. Greenwood	2,112
J. Grover & Son	2,400	G. H. & A. Bywaters	1,985
Perry & Co.	2,276	J. Carmichael*	1,985
Allen & Son	2,200		

* Accepted.

MOSSLEY (Lancashire).—Accepted for alterations to National Schools. Mr. J. H. Burton, architect, 2, Guide-lane, Hooley Hill:—

Excavating and Masonry.—Samuel Frost, Mossley £245 0 0
Carpentry and Joinery.—Herbert Ogden, Mossley 322 0 0
Slating and Plastering.—J. Oldfield, Mossley .. 42 15 0
Plumbing and Glazing.—G. Beaumont, Mossley 20 12 0
Painting.—G. Beaumont, Mossley 3 3 0
Sliding Partitions.—J. Heywood, Manchester .. 190 14 6

NELSON.—Accepted for building the Walverton Board School, for the Nelson School Board. Mr. Thomas Bell, architect, Burnley and Nelson. Quantities by architect:—

Masonry.—T. Dent & Sons, Nelson £4,349 0 0
Joinery.—W. Boothman & Sons, Nelson..... 2,100 0 0
Ironfounding.—Wm. Walton, Burnley 224 9 8
Concreting.—Asphaltic Concretors, Birmingham 606 17 0
Slating.—O. Whitaker, Burnley 487 19 0
Plumbing.—J. Hargreaves, Nelson..... 450 0 0
Plastering.—E. Butler, Barrowford 260 0 0
Heating, &c.—W. F. Spencer, Oldham..... 426 0 0
Painting.—W. Aspinall, Burnley 204 0 0
Gates and Railings.—W. Pollard, Burnley.... 129 0 0

NEWCASTLE-UNDER-LYME.—For oak seating for St. Giles' Church. Mr. John Lewis, architect, Newcastle, Staffs.:—

J. Gallimore	£850	Harry Hems & Sons	£595
J. Thompson	650	Jones & Willis	595
E. Edwards	649		

NEWPORT (Mon.).—For the erection of a new general hospital, &c., Cardiff-road. Mr. Richard J. Lovell, architect, 46, Queen Victoria-street, London. Quantities by Mr. James Kennedy, 25, Bedford-row, W.C.:—

H. Wilcox	£34,250	W. Bowers & Sons	£31,940
C. H. Reid	34,120	Dyson Parfitt	31,400
W. J. Bloxham	33,860	John Linton	30,850
W. A. Linton	32,575	Jno. D. Davies	30,097
Gradwell	32 572	T. Westacott	29,994
Blackburn	32 485	A. S. Morgan & Co.	29,953
Samuel Warburton	32,314	Newport, Mon.*	29,950

* Accepted.

NEWTON-IN-CARTMEL.—For work in connexion with the erection of a house, for Mr. Henry Bispham. Messrs. Grundy & Son, architects, Ulverston:—

Joinery.

Thomas Wren	£123 0 0	William Till, Grange-over-Sands*	£99 17 6
Anthony Leak	103 17 0		

Plumbing and Glazing.

T. Braithwaite, Grange-over-Sands*	£16 5 0	Benjamin Ward	£15 7 6
		T. Graham	15 0 6

* Accepted.

RADLETT.—Accepted for the erection of a residential cottage, Cobden's Hill, Radlett, Herts. Mr. C. Collas Robin, architect, 32, Great James-street, Bedford-row, W.C.:—

Whitehouse & Verdon £500

RAMSGATE.—For erecting four cottages, St. Luke's-avenue. Mr. W. A. Mackintosh Valon, C.E., Ramsgate:—

S. R. Port	£682 0	Woodhall	£624 10
Miriams	665 0	J. & H. White*	598 0
Hayward & Paramor	641 0		

* Accepted.

[All of Ramsgate.]

ST. LEONARD'S-ON-SEA.—For alterations at No. 5, Grand Parade, St. Leonard's-on-Sea, for Mrs. Bowerman. Mr. W. Cooper, architect, 21, Havelock-road, Hastings:—

F. O. Dray	£742 15	W. Coussens*	£340 0
Padgham & Hutchinson	522 0		

* Accepted.

SALISBURY.—For additions to schools. Messrs. John Harding & Son, architects, 51, The Canal, Salisbury. Quantities by architects:—

Jenkins & Sons	£2,497 0 0	E. Hale	£2,070 0 0
Vincent & Folland	2,285 0 0	Webb & Co.	2,062 0 0
E. Day	2,201 0 0	Wort & Way, Park Works, Salisbury*	1,939 1 7
T. Dawkins	2,195 0 0		
E. Witt	2,175 0 0		

* Accepted.

SEAFORD (Sussex).—Accepted for alterations to No. 2, Claremont-villas, Claremont-road, for Mr. W. Lambe. Mr. W. Cooper, architect, 21, Havelock-road, Hastings:—

Berry £350

SILVERHILL (Sussex).—For additions to St. Matthew's Schools, Silverhill, Mr. W. Cooper, architect, Hastings:—

H. Cruttenden	£208	H. Ashdown (accepted)	£219

SOUTH CROXTON (Leicestershire).—Accepted for the erection of additional stabling. Messrs. Miles & Bentley, architects, Friar-lane, Leicester. Quantities by architects:—

M. Hickling, Syston £302

THETFORD.—For New Cottage Hospital, Thetford, Norfolk. Mr. H. J. Green, architect, 31, Castle Meadow, Norwich:—

Adcock & Son	£775 5 5	J. Boughton & Son, Thetford*	£731 14 0
S. Holden	774 0 6		

* Accepted.

TIVERTON.—For erecting schools, Tiverton, Bath, for the School Board. Messrs. Silcock & Reay, architects, Octagon Chambers, Bath:—

Cowlin & Son	£8,190	J. Long & Sons, Railway-road, Bath*	£7,655
Hayward & Worster	7,899		

* Accepted.

TOWNHEAD, HOPE.—Accepted for taking down existing bridge over the River Noe at Townhead, and erecting a new bridge, for the Chapel-en-le-Frith R.D.C. Messrs. Sterling & Swann, engineers, Town Hall, Chapel-en-le-Frith:—

T. A. Matthews, Buxton £395

WALSALL.—For additions to North Bank, Highgate, Walsall, Mr. Fred. W. Cross, architect, 2, The Bridge, Walsall:—

A. Lynex	£557	George Insley, Mount-street, Walsall*	£453
Wm. Wistance	518		
M. Hughes	481		

* Accepted.

[Architect's estimate £450.]

WALTHAMSTOW.—For pulling down and rebuilding Nos. 43 and 45, St. James-street, in connexion with Everett's Stores, for Mr. R. Thos. Jolly. Mr. J. Williams Dunford, architect and surveyor, 100C, Queen Victoria-street, E.C.:—

G. Knight & Sons	£2,404	Richardson Bros.	£2,048
D. Gibb & Co.	2,160	Geo. Burrage	1,867
E. Fuller & Son	2,100	F. J. Coxhead, Leyton-stone (accepted)	1,773
W. Lawrence	2,093		

[Architect's estimate, £1,780.]

WALTHAMSTOW.—For erecting a terrace of cottage residences, for the Freehold and Leasehold Investment Company, Ltd. Mr. E. C. Beaumont, architect, 76, Fleet-street, E.C.:—

Taylor & Sons, Portway, Plaistow, E. £3,520

WESTGATE-ON-SEA.—For the erection of two dwelling-houses in the Minster-road, for Mr. B. Watson. Mr. T. W. Moore, architect, 76, Chancery-lane, London, W.C.:—

J. Griffiths	£1,662 0 0	F. Pearce	£775 0 0
F. T. Dense	1,145 11 8	A. Miles (accepted)	775 0 0

WOODFORD.—For building a cottage at Woodford, Essex, for Mr. John Appleby. Messrs. Edward Brown & Son, architects, Commercial-street, Bishopsgate:—

Tapperell & Davis	£176 15	H. Wells & Sons*	£149 0
J. V. Kiddle & Sons	175 0		

* Accepted.

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